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## DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA **SUMMARY OF EARTHWORK** IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
<b>SUMMARY NO. 1</b>					
-Y3- 13+25.00 TO 26+50.00	397		4,801	4,404	
-Y4- 10+10.00 TO 12+42.12	59		326	267	
-L- 373+00.00 TO 403+00.00	2,422		2,050,283	2,047,861	
-L- 403+00.00 TO 410+06.22	137,903		280		137,623
(INCLUDES PORTION OF -Y1RPB-, -Y1RPC-, & -Y1LPB-)					
-Y1RPB- 19+00.00 TO 32+00.00	61,361		117,251	55,890	
-Y1RPC- 18+35.00 TO 31+11.75	5,112		138,502	133,390	
-Y1LPB- 13+50.00 TO 18+00.00	20,095		46		20,049
-Y1- 10+75.00 TO 28+13.39	3,334		12,398	9,064	
-Y1- 30+34.05 TO 48+50.00	26,661		32,983	6,322	
(INCLUDES -Y1DET- REMOVAL)					
-DR2- 10+16.50 TO 12+10.00	25		1,030	1,005	
(INCLUDES -DR3-)					
-Y1DET- 15+93.03 TO 33+46.92	6,019		12,352	6,333	
SUBTOTAL	263,388		2,370,252	2,264,536	157,672
<b>SUMMARY NO. 2</b>					
-L- 410+06.22 TO 440+00.00	290,132		209,861		80,271
(INCLUDES PORTION OF -Y1RPD- & -SRSA-)					
-L- 440+00.00 TO 447+50.00	45,148		42,127		3,021
(INCLUDES PORTION OF -SRSA- & -Y2DET-)					
-Y1RPD- 18+60.00 TO 31+50.00	24,095		136,015	111,920	
-Y2- 10+00.00 TO 20+18.52	2,491		926		1,565
-Y2- 22+40.27 TO 26+50.00	575		1,152	577	
(INCLUDES -Y2DET- REMOVAL)					
-SRSA- 10+00.00 TO 12+00.00	493		13		480
-SRSA- 29+50.00 TO 31+00.00	438		20		418
-Y2DET- 15+00.00 TO 20+00.00	577		883	306	
-Y2DET- 23+00.00 TO 28+03.31	1,104		12		1,092
SUBTOTAL	365,053		391,009	112,803	86,847

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
<b>SUMMARY NO. 3</b>					
-L- 447+50.00 TO 472+42.45	691,856			17,192	674,664
SUBTOTAL	691,856			17,192	674,664
<b>SUMMARY NO. 4</b>					
-L- 474+52.45 TO 478+00.00	159			54,281	54,122
SUBTOTAL	159			54,281	54,122
TOTAL	1,320,456			2,832,734	2,431,461
<b>MATERIAL FOR SHOULDER CONSTRUCTION</b>					
LOSS DUE TO CLEARING & GRUBBING	-30,000				30,000
<b>WASTE IN LIEU OF BORROW</b>					
PROJECT TOTAL	1,290,456			2,855,534	1,565,078
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					78,254
GRAND TOTAL	1,290,456			2,855,534	1,643,332
SAY	1,350,000				1,700,000
<b>PAVEMENT STRUCTURE VOLUME</b>					
	47,500				
<b>EARTHWORK TOTALS FOR ALTERNATE PAVEMENT DESIGN</b>					
ADJUSTMENT FOR ALTERNATE PAVEMENT DESIGN	-13,000			15,600	28,600
<b>MATERIAL FOR SHOULDER CONSTRUCTION</b>					
LOSS DUE TO CLEARING & GRUBBING	-30,000				30,000
<b>WASTE IN LIEU OF BORROW</b>					
PROJECT TOTAL	1,277,456			2,866,334	1,588,878
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					79,444
GRAND TOTAL	1,277,456			2,866,334	1,668,322
SAY	1,350,000				1,700,000
<b>PAVEMENT STRUCTURE VOLUME</b>					
	35,000				

QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL RE-CROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT. THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID.

EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

EST. UNDERCUT = 10,000 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015.  
 EST. SELECT GRANULAR MATERIAL = 35,900 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015.  
 EST. SHALLOW UNDERCUT = 5,000 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015.  
 EST. DDE = 19,500 CY  
 EST. PAVEMENT STRUCTURE VOLUME = 47,500 CY  
 EST. PAVEMENT STRUCTURE VOLUME FOR ALTERNATIVE PAVEMENT DESIGN = 35,000 CY

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COMPUTED BY: BNE DATE: 3/29/2017  
 CHECKED BY: JMB DATE: 5/19/2017

**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS**

PROJECT NO. U-2579C SHEET NO. 3D-8

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.  
 See "Standard Specifications For Roads and Structures, Section 300-5".

**LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 54" & OVER)**

STATION	LOCATION (L, RT, OR CL)	STRUCTURE NO.		TOP ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE)				C.S. PIPE (UNLESS NOTED OTHERWISE)				CORRUGATED STEEL PIPE ARCH				REINFORCED ENDWALLS		FRAMES, GRATES & HOOD STANDARD 840.03	CONCRETE TRANSITIONAL SECTION		REINF. CONC. FLARED END SECTIONS NO. & SIZE	CORR. STEEL FLARED END SECTIONS NO. & SIZE	CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS	ABBREVIATIONS										
		FROM	TO				54"	60"	66"	72"	54"	60"	66"	78"	95" x 67"	WITH R.C. - C.Y.	WITH C.S. - C.Y.	MASONRY DRAINAGE STRUCTURES CUBIC YARDS	C.B. STD. 840.01 OR 840.02	F		G	DROP INLET								CATCH BASIN	J.B. STD. 840.31 OR 840.32	M.H. FRAME AND COVER STD. 840.54	J.B. SPECIAL DETAIL - SEE DETAIL SHEET 2C-18						
386+76 -L-	LT	514	517		939.5	939.0																																		
386+75 -L-	LT	517	518	947.0	939.0	929.4																																		
388+73 -L-	RT	518	519	935.2	928.4	928.3																																		
379+60 -L-	LT	520	521		969.0	935.6																																		
383+49 -L-	RT	521	522	942.4	933.1	933.0																																		
413+74 -L-	LT	650	651		916.0	915.8																																		
413+77 -L-	LT	651	652		915.8	911.5																																		
26+46 -Y1RPD-	RT	704	705		907.5	904.0																																		
25+82 -Y1RPD-	LT	705																																						
22+67 -SRSA-	CL	812			892.2	891.8																																		
475+83 -L-	CL	1110			858.0	857.0																																		
<b>SHEET TOTALS</b>																																								
<b>SAY</b>																																								

**ABBREVIATIONS**  
 C.A.A. CORRUGATED ALUMINUM ALLOY  
 C.B. CATCH BASIN  
 C.S. CORRUGATED STEEL  
 D.I. DROP INLET  
 G.D.I. GRATED DROP INLET  
 H.D.P.E. HIGH DENSITY POLYETHYLENE  
 J.B. JUNCTION BOX  
 M.H. MANHOLE  
 N.S. NARROW SLOT  
 P.V.C. POLYVINYL CHLORIDE  
 R.C. REINFORCED CONCRETE  
 T.B.D.I. TRAFFIC BEARING DROP INLET  
 T.B.J.B. TRAFFIC BEARING JUNCTION BOX  
 W.S. WIDE SLOT

COMPUTED BY: JBB DATE: 4/21/17  
 CHECKED BY: SCC DATE: 4/21/17 REV: 7/3/17

(2-16-16)

PROJECT NO.  
U-2579C

SHEET NO.  
3G-1

**STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS**

**SUMMARY OF SUBSURFACE DRAINAGE**

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
CONTINGENCY				UD	14950
				<b>TOTAL LF:</b>	14950

\*UD = Underdrain  
 \*BD = Blind Drain  
 \*SD = Subsurface Drain

**SUMMARY OF  
 BRIDGE WAITING PERIODS**

Bridge Description	End Bent	MONTHS
Bridge 702 (LL) on -L- (Future 1-74) over Lowery Mill Creek	2	4
Bridge 702 (RL) on -L- (Future 1-74) over Lowery Mill Creek	2	4

**SUMMARY OF  
 SETTLEMENT GAUGES**

Gauge No.	LINE	Approx.	Approx.
1	-L-	475+00	80 FT LT
2	-L-	475+00	80 FT RT
<b>TOTAL GAUGES (EACH):</b>			2

**SUMMARY OF GEOTEXTILE  
 FOR PAVEMENT STABILIZATION**

LINE	Station	Station	SY	Offset
-L-	373+00	401+75	39611	CL
-L-	413+00	415+50	3444	CL
-L-	427+25	428+50	1722	CL
-L-	431+25	443+75	17222	CL
-L-	470+00	472+36	3252	CL
-L-	474+46	478+00	4877	CL
-Y1-	30+34	35+25	2837	CL
-Y1RPB-	10+00	25+50	4478	CL
-Y1RPC-	10+00	25+00	4333	CL
-Y1RPD-	22+00	32+31	2978	CL
<b>TOTAL SY:</b>			84754	

**SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION**

LINE	Station	Station	Aggregate Type ASU/AST	Aggregate Thickness INCHES	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Soil Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
CONTINGENCY			ASU	12	5000	9500	15000		
CONTINGENCY			AST	3				500	
<b>TOTAL CY/TONS/SY:</b>					5000	9500	15000**	500	0

\*ASU = Aggregate Subgrade  
 \*AST = Aggregate Stabilization  
 \*\*Total square yards of Geotextile for Soil Stabilization is only the estimated quantity for ASU/AST and may only represent a portion of the geotextile quantity shown in the Item Sheets of the Proposal.

**STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS**

**PARCEL INDEX SHEET**

<b>PROJ. REFERENCE NO.</b> U-2579C	<b>SHEET NO.</b> 3P-1
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PARCEL No.	SHEET No.	PROPERTY OWNER NAME
1	4	OAK GROVE MORAVIAN CHURCH TRUSTEES
2	4	MDC INVESTMENTS LLC
3	4	JOHN H. MAYFIELD, JR.
4	4	CLARENCE E. & LILLIE M. FARABEE
5	4,5	OAK GROVE MORAVIAN CHURCH TRUSTEES
9	5, 6	MARGARET H. HOERNER & MARY E. HAMMOCK
10	6	LEE LeBRUN CHAPMAN & PEGGY H. CHAPMAN
11	6, 13	ROBERT B. STIMPSON
12	6	ANDREW W. MARSHALL
15	6	HARVEY I. & LAURIE A.I. MOLES
16	6	MARLETA BROWN
17	6	NCDOT
18	6	JAMES C. HALES & BOBBY R. HALES
19	6	NCDOT
20	6	NCDOT
21	6	NCDOT
22	6	LARRY L. & PATSY S. INMAN
23	6	NCDOT
25	6	BOBBY L. THORE
26	6	MANYON L. IDOL, SR
27	6	MANYON L. IDOL, SR
28	6	SANDY DILLON YOKELY
29	6	SANDY DILLON YOKELY
33	6	MELVIN R. JR. & SHERIE F. CALDWELL
34	6	MILDRED H. SELL
35	6	CLARENCE SELL
36	6	HARVEY W. & BETTY C. SEIVERS
37	6, 7, 12	MATTHEW D. & TANGELA J. McKINNEY
38	6, 7	CARL J. MILLER
39	6, 7	JUDY DILLON
40	7	KIMBERLY I. POINDEXTER
40A	7	HAROLD M., JR. & PEGGY HOOVER
41	7	MANYON L. IDOL, JR.
42	7	MANYON L. IDOL, JR.
49	9	DALE C. & CATHY S. VANHOY
52	9	NCDOT
54	9	SHERRELL D. & LELA L. WHICKER
55	9, 14	SHERRELL D. & LELA L. WHICKER
57	8, 9	FARRELL B. & MARILYN E. BYERS
57A	9	MICHAEL W. WESTMORELAND
58	9	MICHAEL W. & ALICE R.H. WESTMORELAND
59	9	MICHAEL W. WESTMORELAND & WADE WESTMORELAND
60	9, 10, 11, 14	MICHAEL W. WESTMORELAND & WADE WESTMORELAND
61	11	FREDERICO B. MORETZ & SUSAN K. MORETZ
62	11	BETH C. DELFOSSE
63	11	KIM C. STREETMAN
64	12	BONNIE S. PEDDYCORD & KIMBERLY I.
65	12	CLARENCE SELL
66	12	NANCY S. McGLAMERY
67	12	MICHAEL L. & KEELY H. GREER
68	12	JUDY W. HAYES
69	12	(MARIE W. & WILLIAM F. MOTSINGER) VICKY MOTSINGER COMBS
70	12	DONNA B. DECKER
71	12	THURMAN & WANDA SPAINHOUR
72	12	PAT R. & KAREN D. FULP
73	13	JOHN A. & MARGARET G. FOLK
76	13	JOHN H. VANHOY
77	13	DONALD G. & GEORGIA B. BARNEYCASTLE
78	13	H.V. & BETTY C. JENKINS & JILES CARDWELL
79	6, 13	FERRELL CONSTRUCTION COMPANY

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
80	13	LINDA F. OVERBY CHURCH
81	13	CHRISTOPHER R. ROTHROCK
82	13	YVONNE SWAIM KILBOURNE
83	13	R. KEITH ROTHROCK
84	14	LEWIS W. & ETHEL C. IDOL
85	14	THOMAS J. MARTIN & RONDA L. MARTIN
86	14	EARL W., III & C. LORRAINE KEARNS
87	14	JULIA L. POWELL
88	14	JERRY B. LEWIS & DENNIS LEWIS
89	14	MICAH W. WOLFINGTON
90	14	DAVID M. EWALD
91	14	CHESTER D. STULTZ
92	8,9	ROGER J. & TIFFANY M. SKIDMORE
93	14	NEIL R. WESTMORELAND
94	4	LINDA R. SHAW
95	4	MT. PLEASANT HOLINESS CHURCH
96	4	LUTHERAN HOME W S PROP INC
97	4	MARYANN B. SWEAT
98	4	TIMOTHY W. & SHANNON S. MALONEY
99	4	WALTER & MARILYN SAWYERS
911	6, 12	NCDOT
922	7, 8	NCDOT
932	8	NCDOT
933	9	NCDOT
935	9	NCDOT
948	9	NCDOT
967	9	NCDOT
975	9	NCDOT
976	6	NCDOT
977	8, 9	NCDOT
978	8	NCDOT
980	8, 9	NCDOT
981	6	NCDOT

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

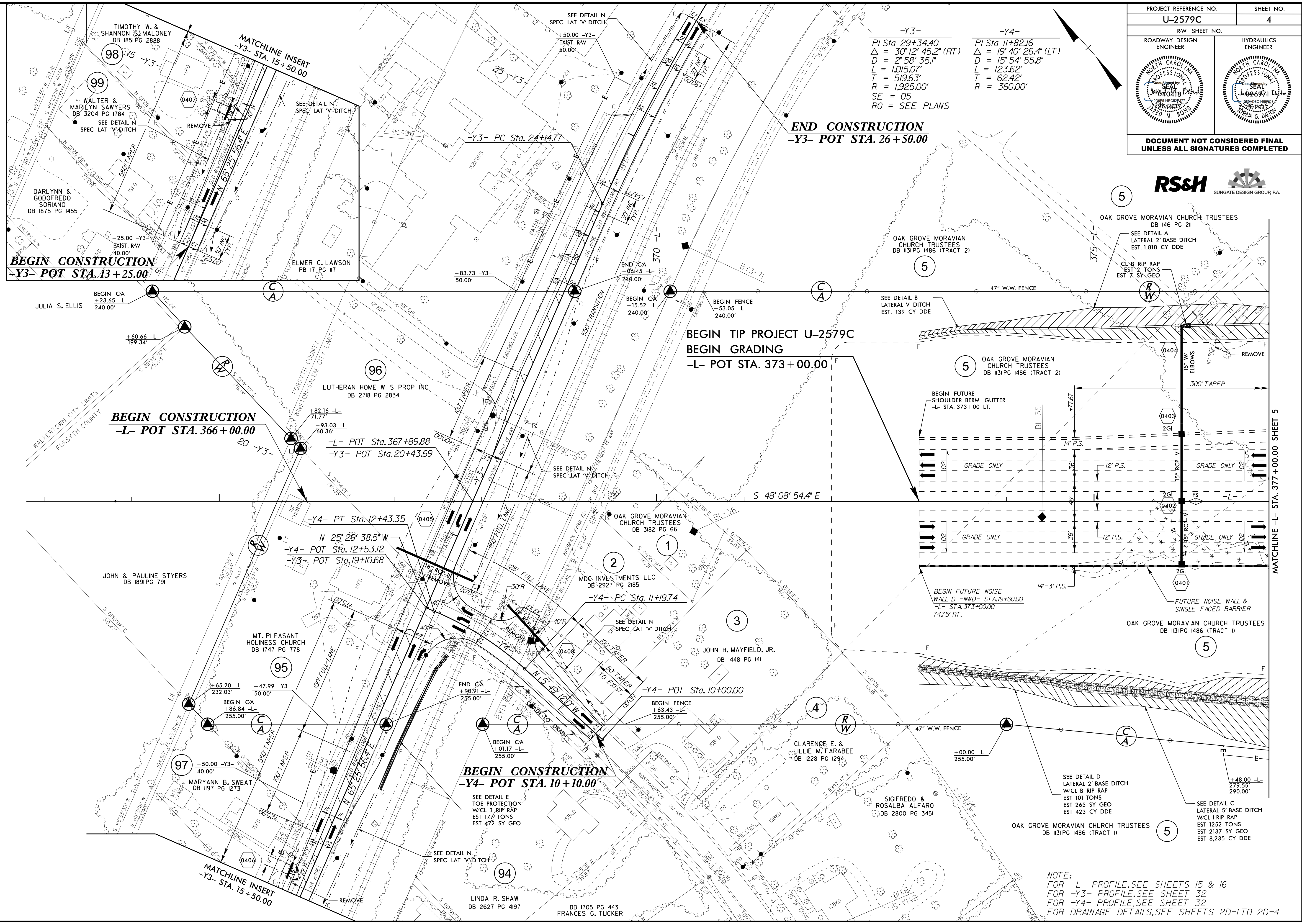


**-Y3-**  
 PI Sta 29+34.40  
 $\Delta = 30' 12' 45.2''$  (RT)  
 $D = 2' 58' 35.1''$   
 $L = 1,015.07'$   
 $T = 519.63'$   
 $R = 1,925.00'$   
 $SE = 05$   
 $RO = \text{SEE PLANS}$

**-Y4-**  
 PI Sta 11+82.16  
 $\Delta = 19' 40' 26.4''$  (LT)  
 $D = 15' 54' 55.8''$   
 $L = 123.62'$   
 $T = 62.42'$   
 $R = 360.00'$

**END CONSTRUCTION**  
**-Y3- POT STA. 26 + 50.00**

**BEGIN TIP PROJECT U-2579C**  
**BEGIN GRADING**  
**-L- POT STA. 373 + 00.00**



**BEGIN CONSTRUCTION**  
**-Y3- POT STA. 13 + 25.00**

**BEGIN CONSTRUCTION**  
**-L- POT STA. 366 + 00.00**

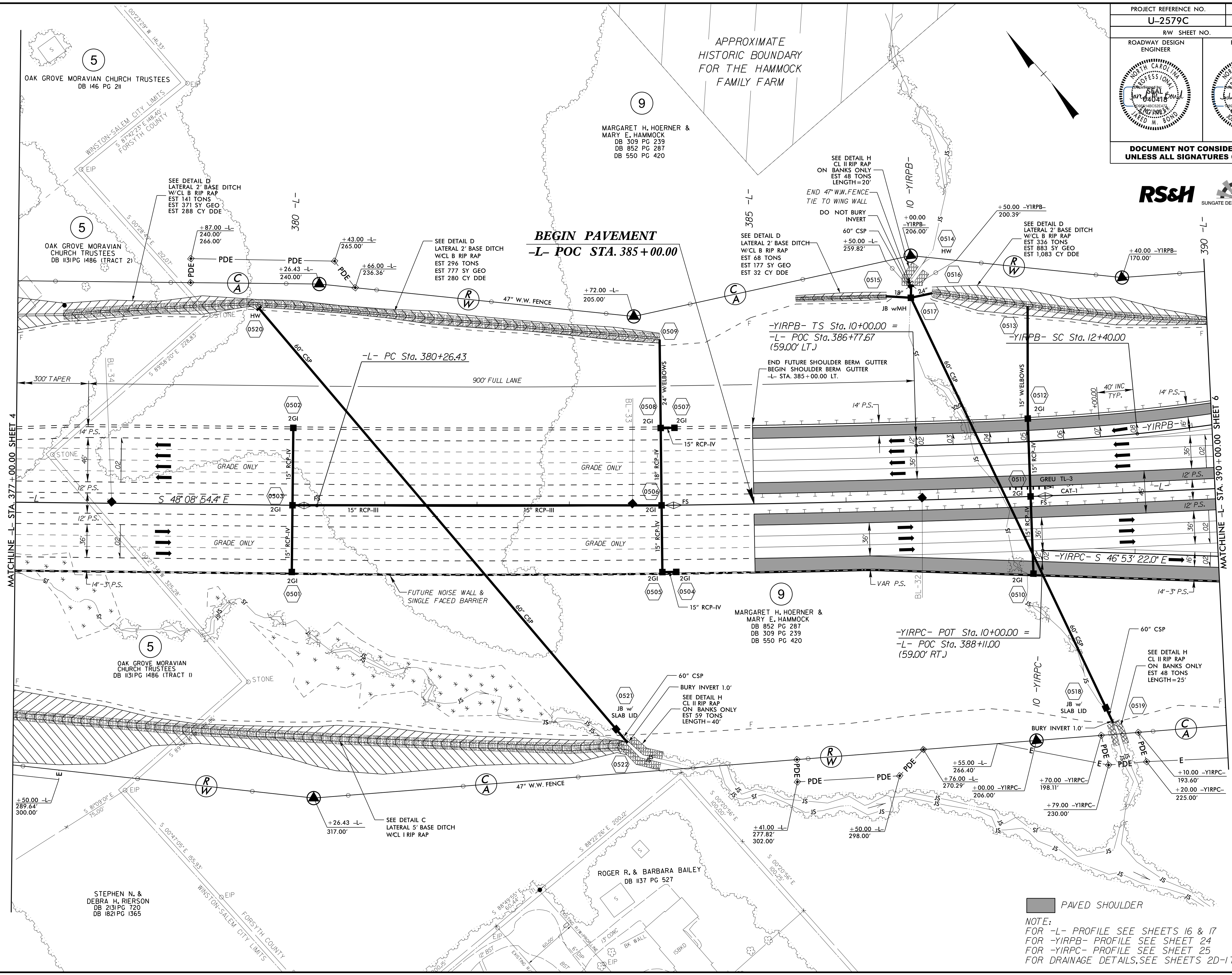
**BEGIN CONSTRUCTION**  
**-Y4- POT STA. 10 + 10.00**

**NOTE:**  
 FOR -L- PROFILE, SEE SHEETS 15 & 16  
 FOR -Y3- PROFILE, SEE SHEET 32  
 FOR -Y4- PROFILE, SEE SHEET 32  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4

REVISIONS

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PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>5</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



REVISIONS

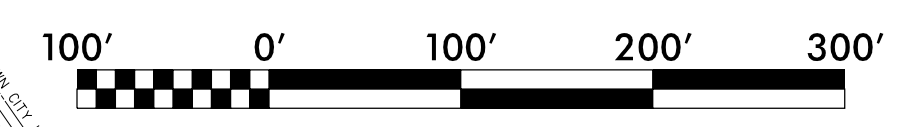
**PAVED SHOULDER**

NOTE:  
 FOR -L- PROFILE SEE SHEETS 16 & 17  
 FOR -YIRPB- PROFILE SEE SHEET 24  
 FOR -YIRPC- PROFILE SEE SHEET 25  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4

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8/17/99

APPROXIMATE HISTORIC BOUNDARY FOR THE HAMMOCK FAMILY FARM



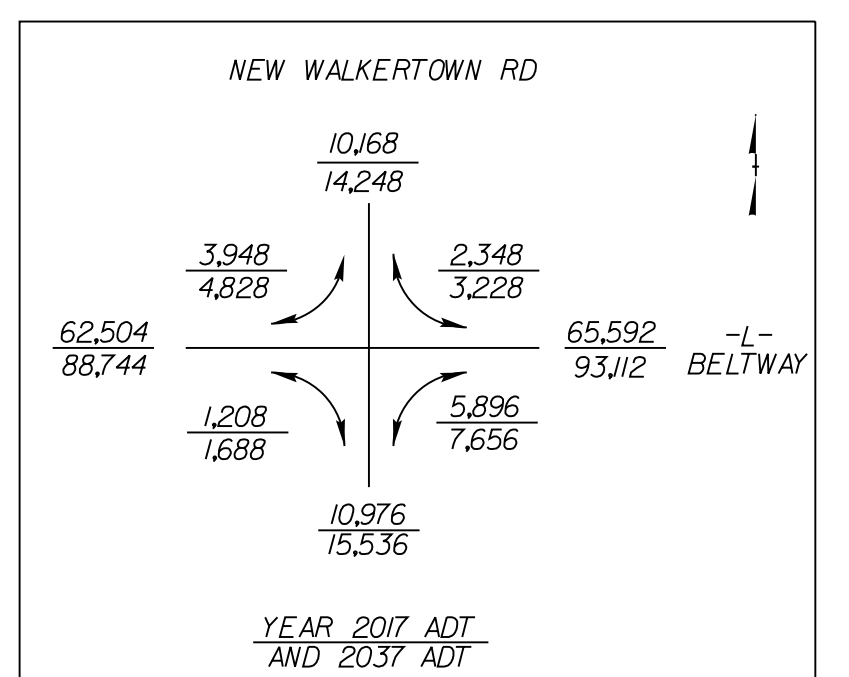
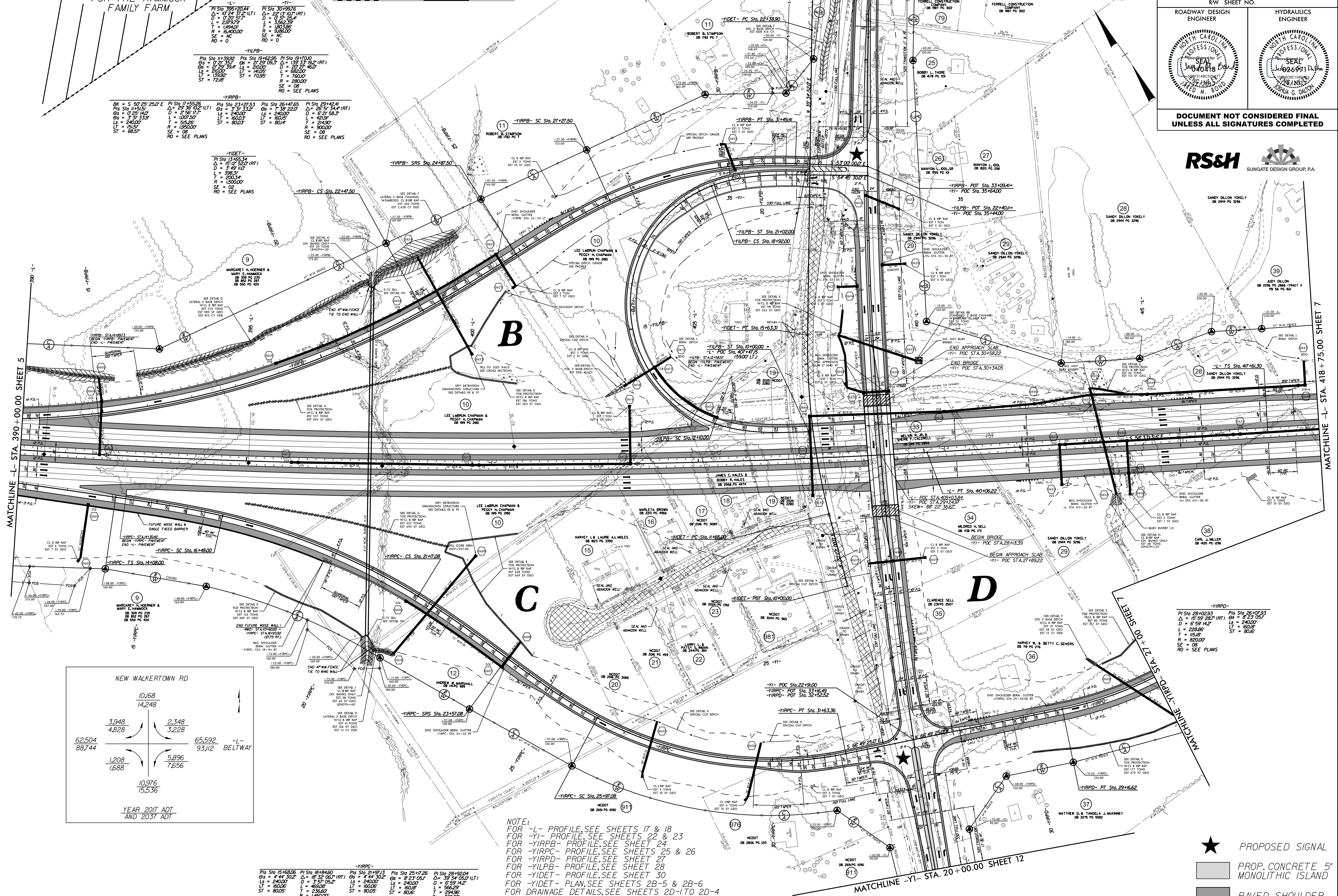
MATCHLINE -YI- STA. 39+50.00 SHEET 13

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>6</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



MATCHLINE -L- STA. 390+00.00 SHEET 5

MATCHLINE -L- STA. 418+75.00 SHEET 7



-L- Pis Sta 395+20.44 Δ = 17.31' (RT) D = 0.30' 27.7" L = 239.19' T = 1.9400' R = 16,400.00' SE = NC RO = 0	-YI- Pis Sta 30+99.76 Δ = 22.13' (RT) D = 0.37' 28.4" L = 256.33' T = 1.8018' R = 16,400.00' SE = NC RO = 0
-YILPB- Pis Sta 14+39.92 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 19+20.00 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS
-YIRPB- Pis Sta 23+27.53 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 26+47.65 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS
-YIDET- Pis Sta 13+66.34 Δ = 10.12' (RT) D = 3.49' 11.0" L = 300.34' T = 1.5000' R = 15,000.00' SE = 02 RO = SEE PLANS	Pis Sta 29+42.41 Δ = 20.59' 14.2" D = 0.27' 28.4" L = 240.00' T = 1.5000' R = 15,000.00' SE = 02 RO = SEE PLANS

-YIRPB- Pis Sta 17+55.26 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 21+02.00 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS
-YIRPB- Pis Sta 23+27.53 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 26+47.65 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS

-YIRPB- Pis Sta 14+39.92 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 19+20.00 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS
-YIRPB- Pis Sta 23+27.53 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 26+47.65 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS

-YIRPB- Pis Sta 17+55.26 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 21+02.00 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS
-YIRPB- Pis Sta 23+27.53 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 26+47.65 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS

-YIRPB- Pis Sta 14+39.92 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 19+20.00 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS
-YIRPB- Pis Sta 23+27.53 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 26+47.65 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS

-YIRPB- Pis Sta 17+55.26 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 21+02.00 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS
-YIRPB- Pis Sta 23+27.53 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS	Pis Sta 26+47.65 Gs = 0.25' 14.0" Ls = 240.00' Ts = 1.5339' R = 19,500.00' SE = 08 RO = SEE PLANS

NOTE:  
 -L- PROFILE, SEE SHEETS 17 & 18  
 -YI- PROFILE, SEE SHEETS 22 & 23  
 -YIRPB- PROFILE, SEE SHEET 24  
 -YIRPC- PROFILE, SEE SHEETS 25 & 26  
 -YIRPD- PROFILE, SEE SHEET 27  
 -YILPB- PROFILE, SEE SHEET 28  
 -YIDET- PROFILE, SEE SHEET 30  
 -YIDET- PLAN, SEE SHEETS 2B-5 & 2B-6  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4  
 FOR BRIDGE SKETCH, SEE SHEET 2B-1  
 FOR STRUCTURE PLANS, SEE SHEETS S1-1 TO S1-32  
 FOR CULVERT PLANS, SEE SHEETS C1-1 TO C1-5

- ★ PROPOSED SIGNAL
- ▭ PROP. CONCRETE 5' MONOLITHIC ISLAND
- ▭ PAVED SHOULDER

REVISIONS

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PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>7</b>
ROADWAY DESIGN ENGINEER <i>[Signature]</i> NORTH CAROLINA PROFESSIONAL ENGINEER No. 1026571 D.H.	HYDRAULICS ENGINEER <i>[Signature]</i> NORTH CAROLINA PROFESSIONAL ENGINEER No. 1026571 D.H.
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



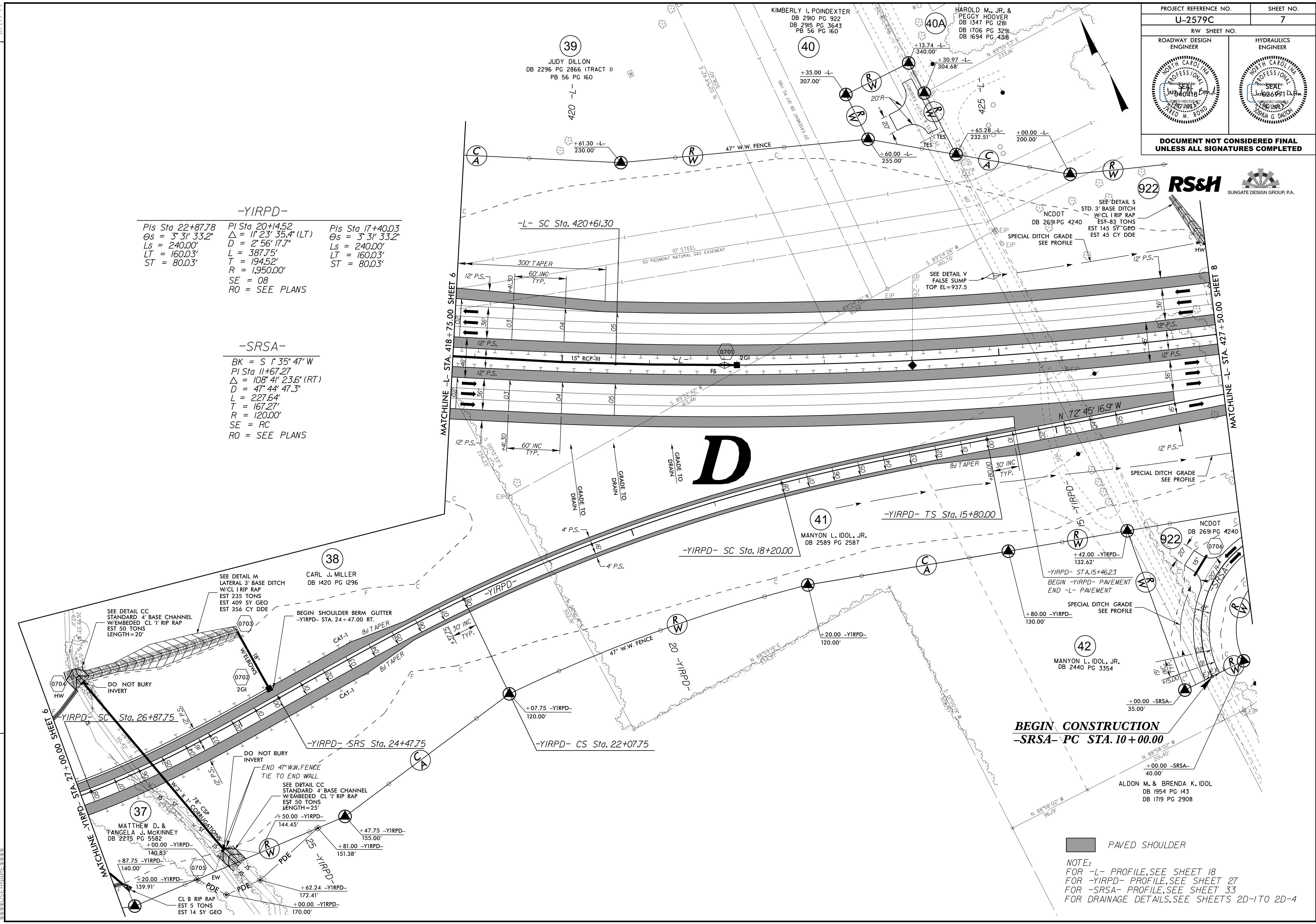
**-YIRPD-**

Pls Sta 22+87.78 Os = 3' 31" 33.2" Ls = 240.00' LT = 160.03' ST = 80.03'	PI Sta 20+14.52 Δ = 11' 23" 35.4" (LT) D = 2' 56" 17.7" L = 387.75' T = 194.52' R = 1,950.00' SE = 08 RO = SEE PLANS	Pls Sta 17+40.03 Os = 3' 31" 33.2" Ls = 240.00' LT = 160.03' ST = 80.03'
--	---	--

**-SRSA-**

BK = S 1' 35" 47" W  
PI Sta 11+67.27  
Δ = 108' 41" 23.6" (RT)  
D = 47' 44" 47.3"  
L = 227.64'  
T = 167.27'  
R = 120.00'  
SE = RC  
RO = SEE PLANS

REVISIONS



PAVED SHOULDER

NOTE:  
FOR -L- PROFILE, SEE SHEET 18  
FOR -YIRPD- PROFILE, SEE SHEET 27  
FOR -SRSA- PROFILE, SEE SHEET 33  
FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4

25 JUL 2017 15:21  
P:\Projects\2579C\2579C\_psh\_7.dgn  
\$\$\$\$\$\$DISPERM\$\$\$\$\$

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>8</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

PAVED SHOULDER

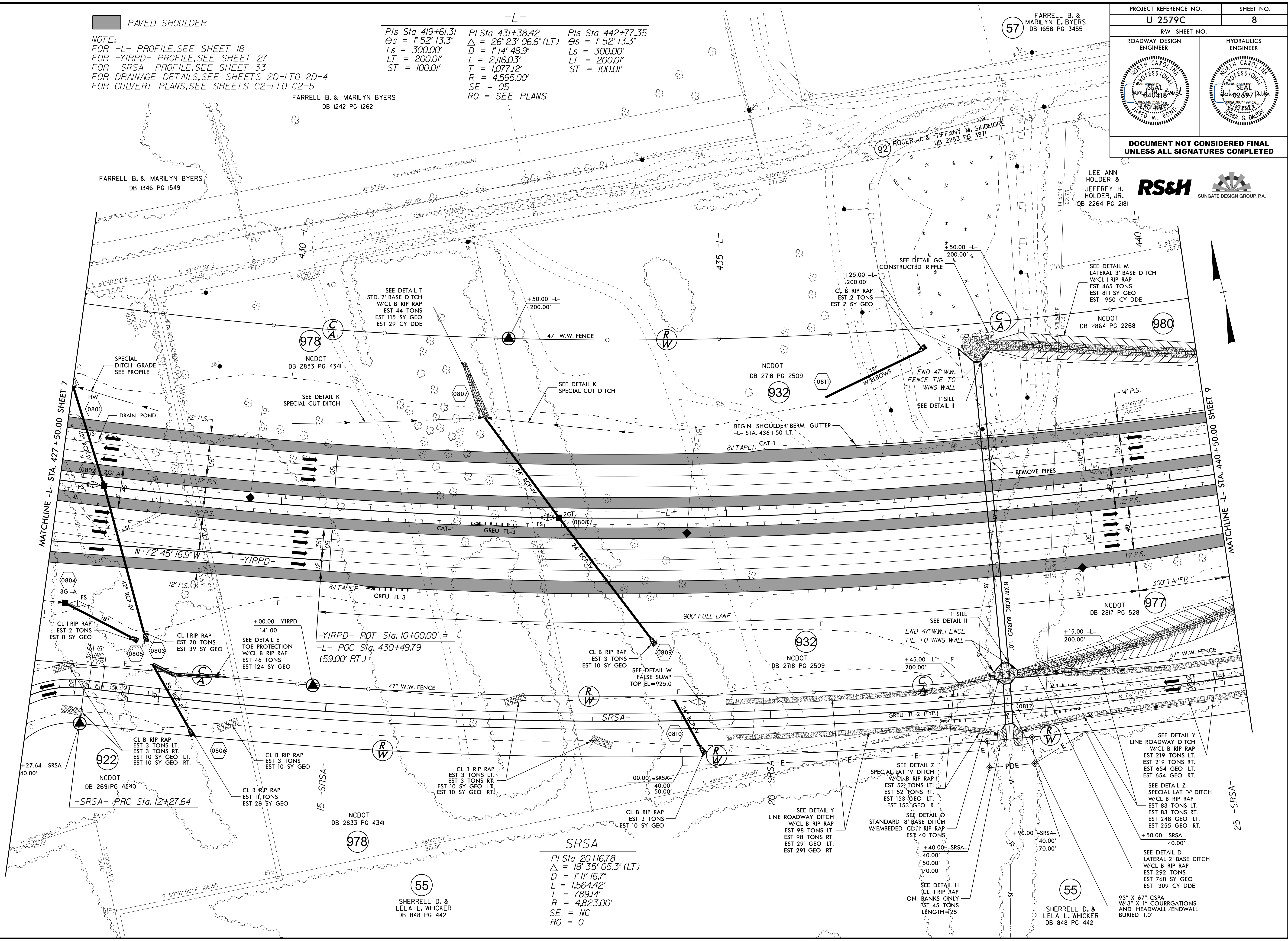
NOTE:  
 FOR -L- PROFILE, SEE SHEET 18  
 FOR -YIRPD- PROFILE, SEE SHEET 27  
 FOR -SRSA- PROFILE, SEE SHEET 33  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4  
 FOR CULVERT PLANS, SEE SHEETS C2-1 TO C2-5

**-L-**  
 Pls Sta 419+61.31    PI Sta 431+38.42    Pls Sta 442+77.35  
 $\Delta = 1'52''13.3''$      $\Delta = 26'23''06.6''(LT)$      $\Delta = 1'52''13.3''$   
 $L_s = 300.00'$      $D = 1'14''48.9''$      $L_s = 300.00'$   
 $LT = 200.01'$      $L = 2,116.03'$      $LT = 200.01'$   
 $ST = 100.01'$      $T = 1,077.12'$      $ST = 100.01'$   
 $R = 4,595.00'$   
 $SE = 05$   
 $RO = \text{SEE PLANS}$

FARRELL B. & MARILYN BYERS  
DB 1242 PG 1262

FARRELL B. & MARILYN BYERS  
DB 1346 PG 1549

LEE ANN  
HOLDER &  
JEFFREY H.  
HOLDER, JR.  
DB 2264 PG 2181



MATCHLINE -L- STA. 427 + 50.00 SHEET 7

MATCHLINE -L- STA. 440 + 50.00 SHEET 9

**-YIRPD- POT Sta. 10+00.00 =**  
**-L- POC Sta. 430+49.79**  
**(59.00' RT.)**

**-SRSA-**  
 PI Sta 20+16.78  
 $\Delta = 18'35''05.3''(LT)$   
 $D = 1'11''16.7''$   
 $L = 1,564.42'$   
 $T = 789.14'$   
 $R = 4,823.00'$   
 $SE = NC$   
 $RO = 0$

55  
SHERRELL D. &  
LELA L. WHICKER  
DB 848 PG 442

55  
SHERRELL D. &  
LELA L. WHICKER  
DB 848 PG 442

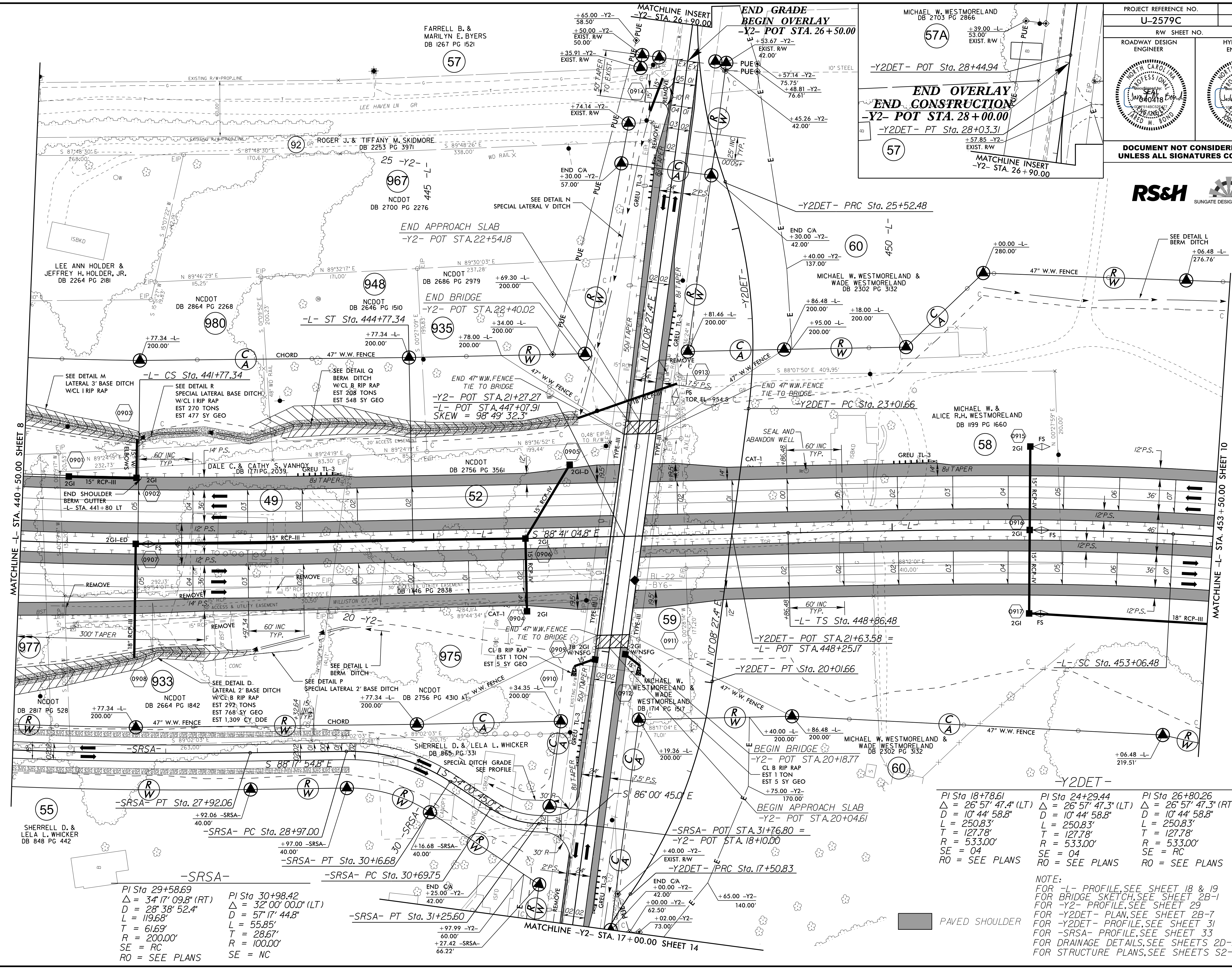
REVISIONS

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8.17.79

REVISIONS

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>9</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



MATCHLINE -L- STA. 440+50.00 SHEET 8

MATCHLINE -L- STA. 453+50.00 SHEET 10

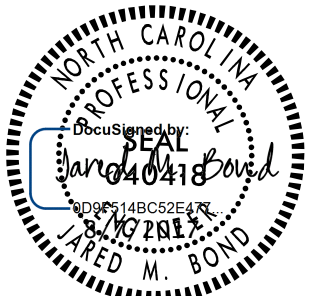
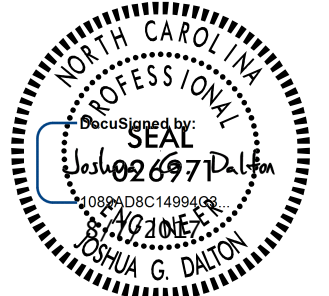
PI Sta 18+78.61 $\Delta = 26' 57'' 47.4''$ (LT) $D = 10' 44'' 58.8''$ $L = 250.83'$ $T = 127.78'$ $R = 533.00'$ $SE = 04$ $RO = \text{SEE PLANS}$	PI Sta 24+29.44 $\Delta = 26' 57'' 47.3''$ (LT) $D = 10' 44'' 58.8''$ $L = 250.83'$ $T = 127.78'$ $R = 533.00'$ $SE = 04$ $RO = \text{SEE PLANS}$	PI Sta 26+80.26 $\Delta = 26' 57'' 47.3''$ (RT) $D = 10' 44'' 58.8''$ $L = 250.83'$ $T = 127.78'$ $R = 533.00'$ $SE = RC$ $RO = \text{SEE PLANS}$
--	--	--

NOTE:  
 FOR -L- PROFILE, SEE SHEET 18 & 19  
 FOR BRIDGE SKETCH, SEE SHEET 2B-1  
 FOR -Y2- PROFILE, SEE SHEET 29  
 FOR -Y2DET- PLAN, SEE SHEET 2B-7  
 FOR -Y2DET- PROFILE, SEE SHEET 31  
 FOR -SRSA- PROFILE, SEE SHEET 33  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4  
 FOR STRUCTURE PLANS, SEE SHEETS S2-1 TO S2-30

PI Sta 29+58.69 $\Delta = 34' 17'' 09.8''$ (RT) $D = 28' 38'' 52.4''$ $L = 119.68'$ $T = 61.69'$ $R = 200.00'$ $SE = RC$ $RO = \text{SEE PLANS}$	PI Sta 30+98.42 $\Delta = 32' 00'' 00.0''$ (LT) $D = 57' 17'' 44.8''$ $L = 55.85'$ $T = 28.67'$ $R = 100.00'$ $SE = NC$
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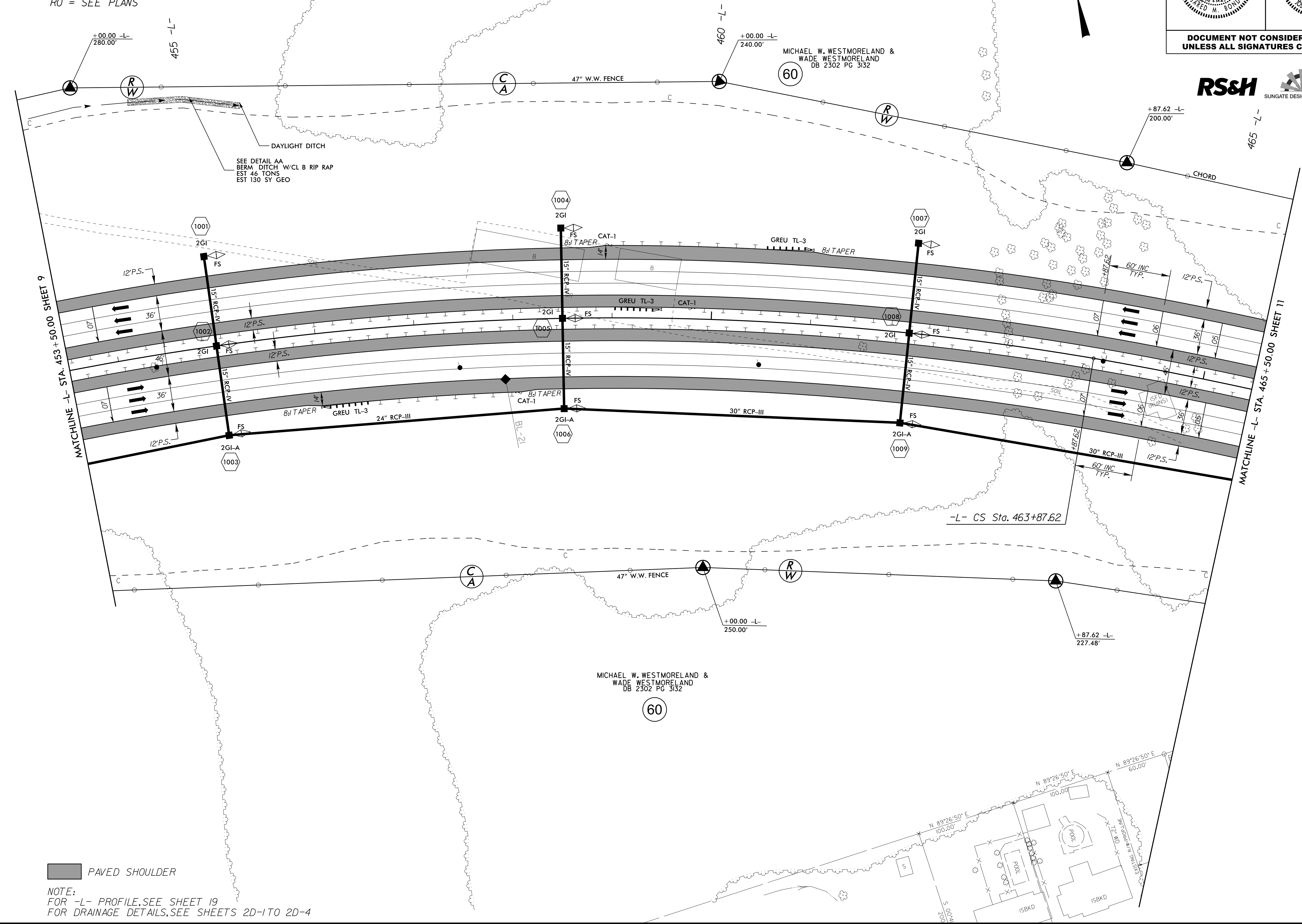
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8/17/99

PROJECT REFERENCE NO.		SHEET NO.	
U-2579C		10	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		SEAL	
			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

-L-

Pls Sta 451+66.55	PI Sta 458+53.53	Pls Sta 465+27.69
$\Delta s = 4' 11" 32.5"$	$\Delta = 2' 35" 01.1" (RT)$	$\Delta s = 4' 11" 32.5"$
Ls = 420.00'	D = 1' 59" 46.9"	Ls = 420.00'
LT = 280.08'	L = 1,081.14'	LT = 280.08'
ST = 140.07'	T = 547.06'	ST = 140.07'
	R = 2,870.00'	
	SE = 07	
	RO = SEE PLANS	

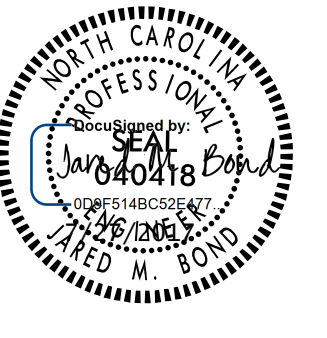



REVISIONS

PAVED SHOULDER

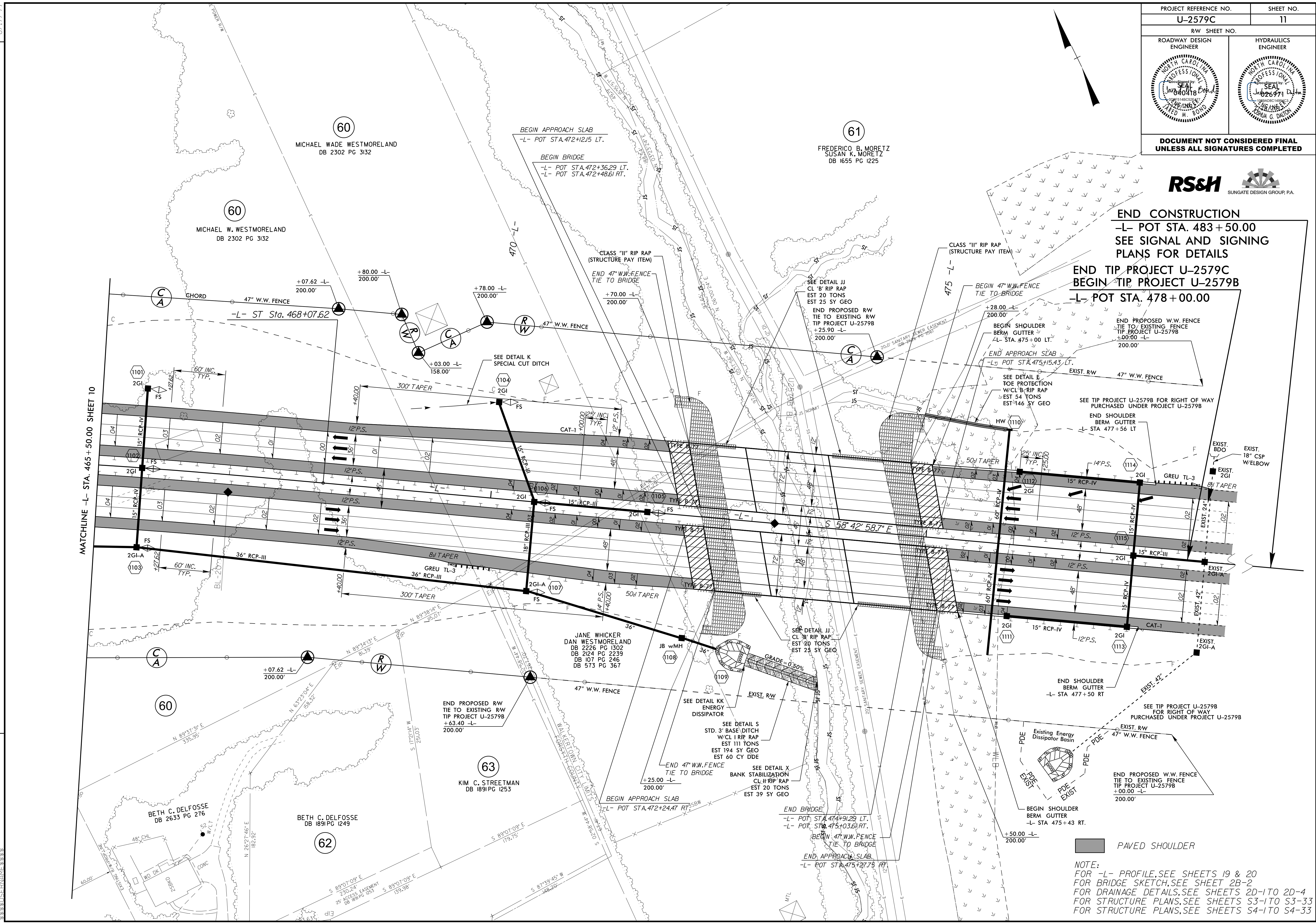
NOTE:  
 FOR -L- PROFILE, SEE SHEET 19  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4

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PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>11</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



**END CONSTRUCTION**  
 -L- POT STA. 483 + 50.00  
 SEE SIGNAL AND SIGNING PLANS FOR DETAILS  
**END TIP PROJECT U-2579C**  
**BEGIN TIP PROJECT U-2579B**  
 -L- POT STA. 478 + 00.00

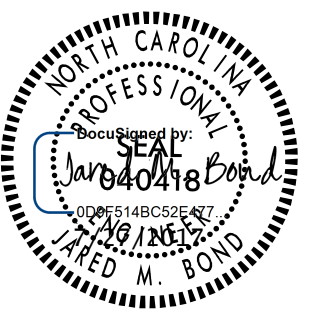



REVISIONS

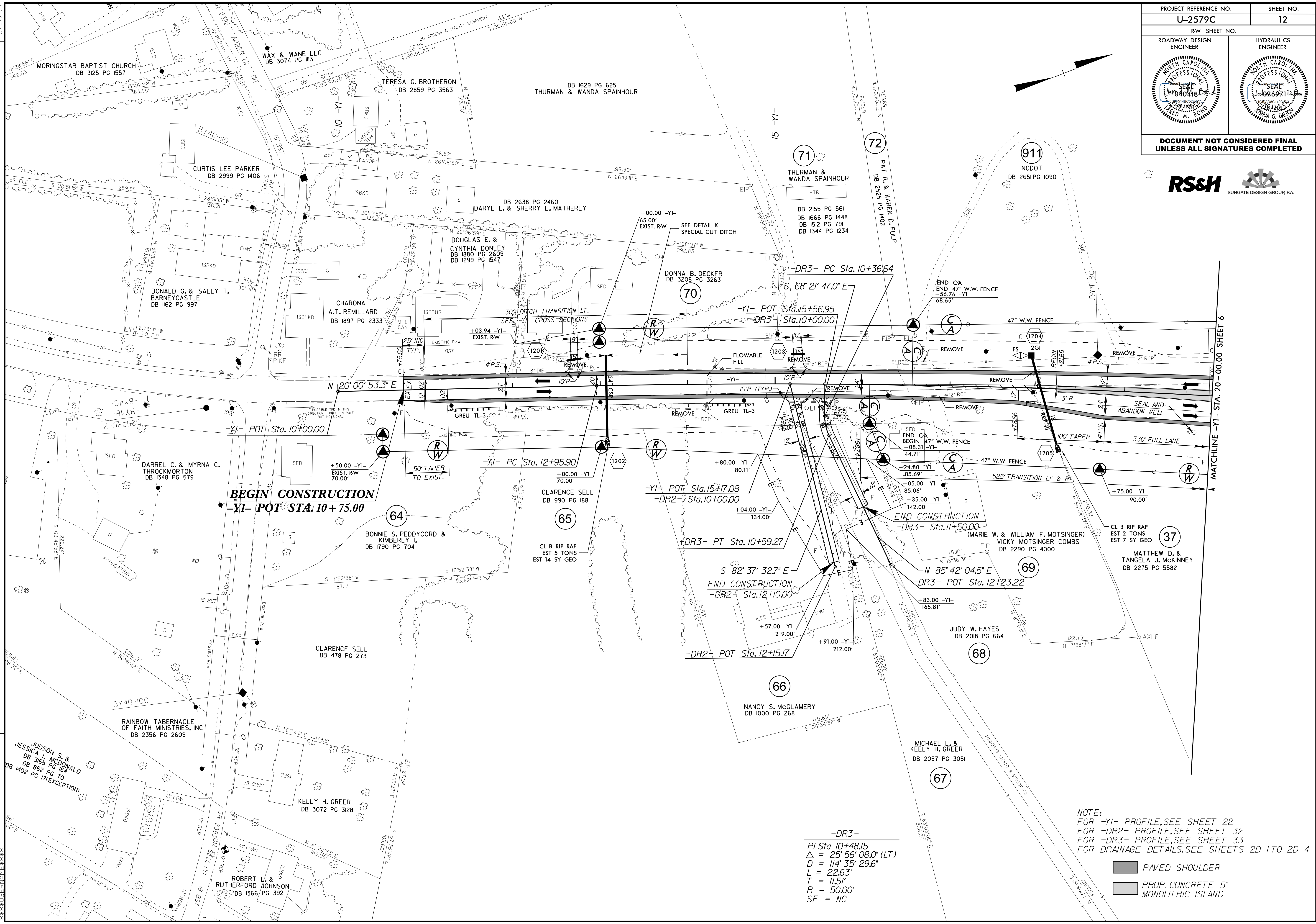
PAVED SHOULDER

NOTE:  
 FOR -L- PROFILE, SEE SHEETS 19 & 20  
 FOR BRIDGE SKETCH, SEE SHEET 2B-2  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4  
 FOR STRUCTURE PLANS, SEE SHEETS S3-1 TO S3-33  
 FOR STRUCTURE PLANS, SEE SHEETS S4-1 TO S4-33

05-JUL-2017 17:05  
 RS-Roadwork\psh\11.dgn  
 \$\$\$\$\$\$DISPERNAME\$\$\$\$\$\$

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>12</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**





REVISIONS

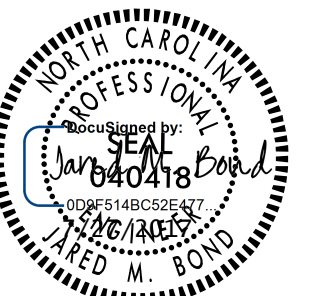
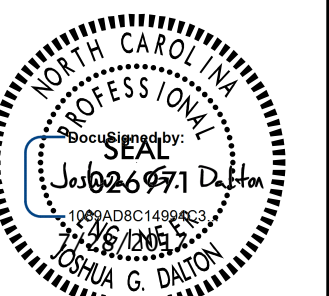
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 RS: Roadway - U-2579C - psh-12.dgn  
 \$\$\$\$\$\$  
 \$\$\$\$\$\$  
 \$\$\$\$\$\$

NOTE:  
 FOR -Y1- PROFILE, SEE SHEET 22  
 FOR -DR2- PROFILE, SEE SHEET 32  
 FOR -DR3- PROFILE, SEE SHEET 33  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4

-DR3-  
 PI Sta 10+48.15  
 $\Delta = 25^{\circ} 56' 08.0''$  (LT)  
 D = 114' 35" 29.6"  
 L = 22.63'  
 T = 11.5'  
 R = 50.00'  
 SE = NC

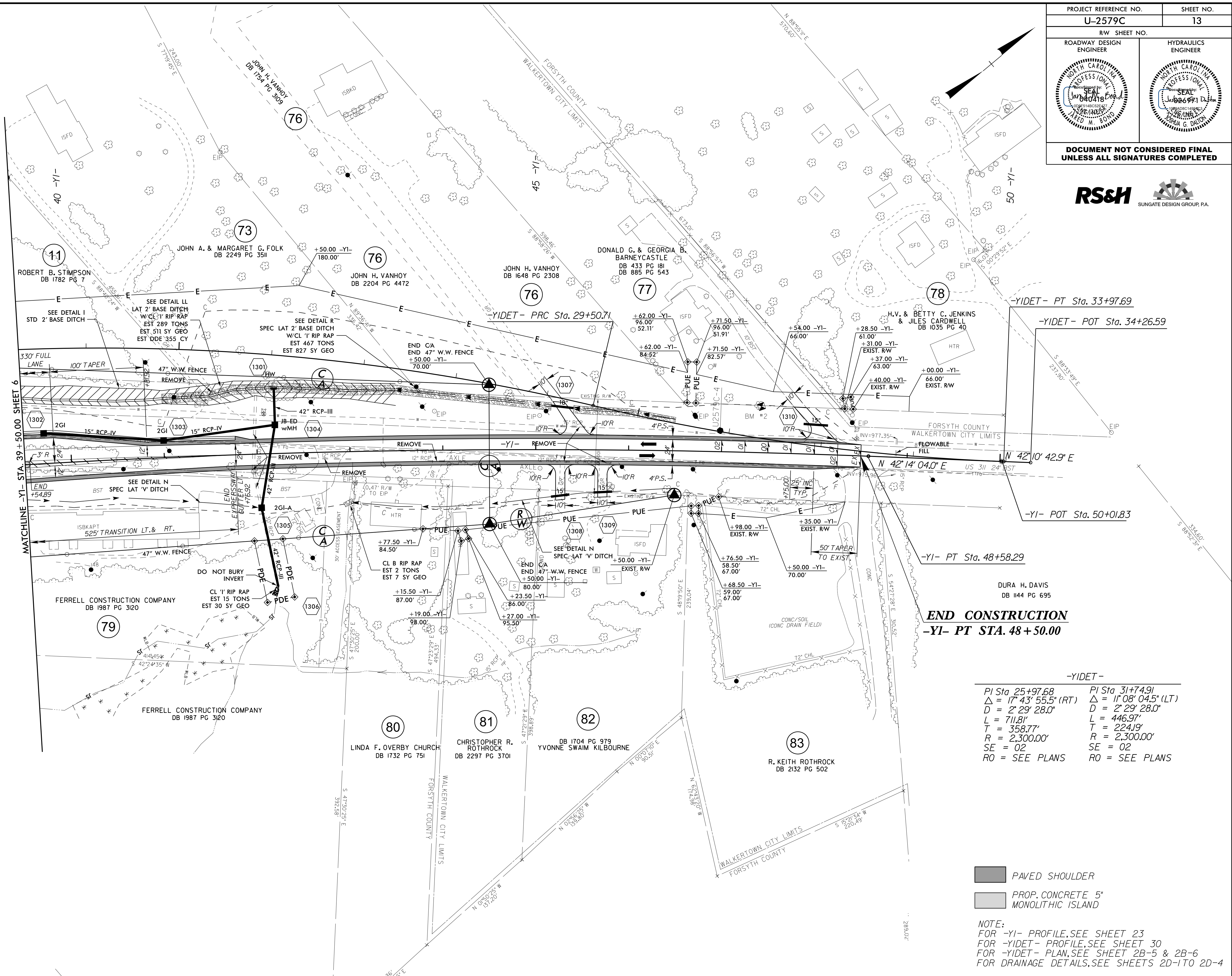
-  PAVED SHOULDER
-  PROP. CONCRETE 5" MONOLITHIC ISLAND

MATCHLINE -Y1- STA. 20+00.00 SHEET 6

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>13</b>
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



REVISIONS



**END CONSTRUCTION**  
 -YI- PT STA. 48+50.00

-YIDET-	
PI Sta 25+97.68	PI Sta 31+74.91
$\Delta = 17^{\circ} 43' 55.5''$ (RT)	$\Delta = 1^{\circ} 08' 04.5''$ (LT)
D = 2' 29' 28.0"	D = 2' 29' 28.0"
L = 711.8'	L = 446.9'
T = 358.77'	T = 224.19'
R = 2,300.00'	R = 2,300.00'
SE = 02	SE = 02
RO = SEE PLANS	RO = SEE PLANS

-  PAVED SHOULDER
-  PROP. CONCRETE 5' MONOLITHIC ISLAND

NOTE:  
 FOR -YI- PROFILE, SEE SHEET 23  
 FOR -YIDET- PROFILE, SEE SHEET 30  
 FOR -YIDET- PLAN, SEE SHEETS 2B-5 & 2B-6  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4

07-JUL-2017 15:35 U-2579C\_psh\_13.dgn  
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 R:\Projects\2017\U-2579C\psh\_13.dgn

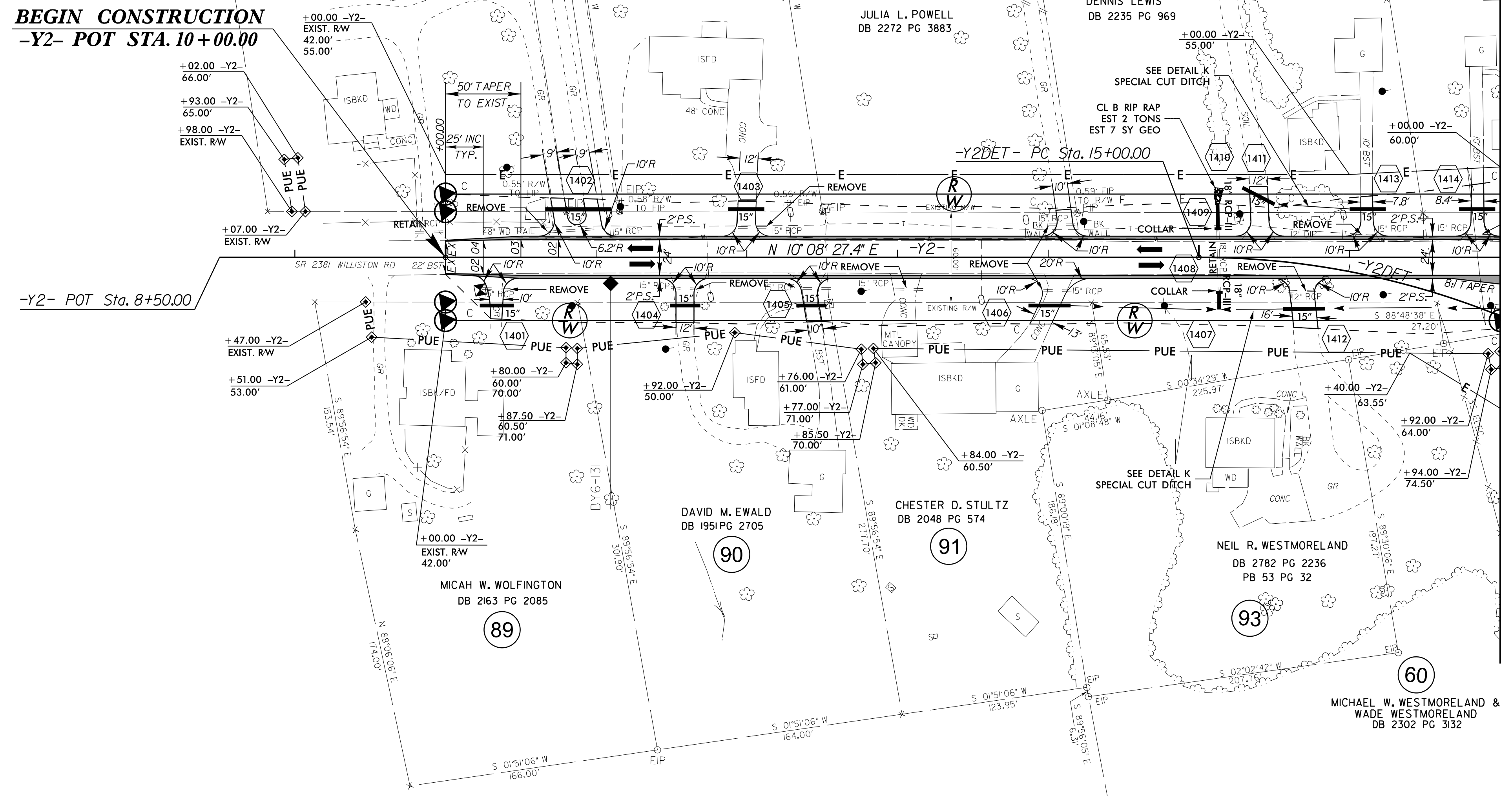
PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>14</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



**BEGIN CONSTRUCTION  
-Y2- POT STA. 10+00.00**

**-Y2- POT Sta. 8+50.00**

**MATCHLINE -Y2- STA. 17+00.00 SHEET 9**



**-Y2DET-**  
 PI Sta 16+27.78  
 $\Delta = 26' 57' 47.4''$  (RT)  
 $D = 10' 44' 58.8''$   
 $L = 250.83'$   
 $T = 127.78'$   
 $R = 533.00'$   
 $SE = RC$

PAVED SHOULDER

**NOTE:**  
 FOR -Y2- PROFILE, SEE SHEET 29  
 FOR -Y2DET- PLAN, SEE SHEET 2B-7  
 FOR -Y2DET- PROFILE, SEE SHEET 31  
 FOR DRAINAGE DETAILS, SEE SHEETS 2D-1 TO 2D-4

REVISIONS

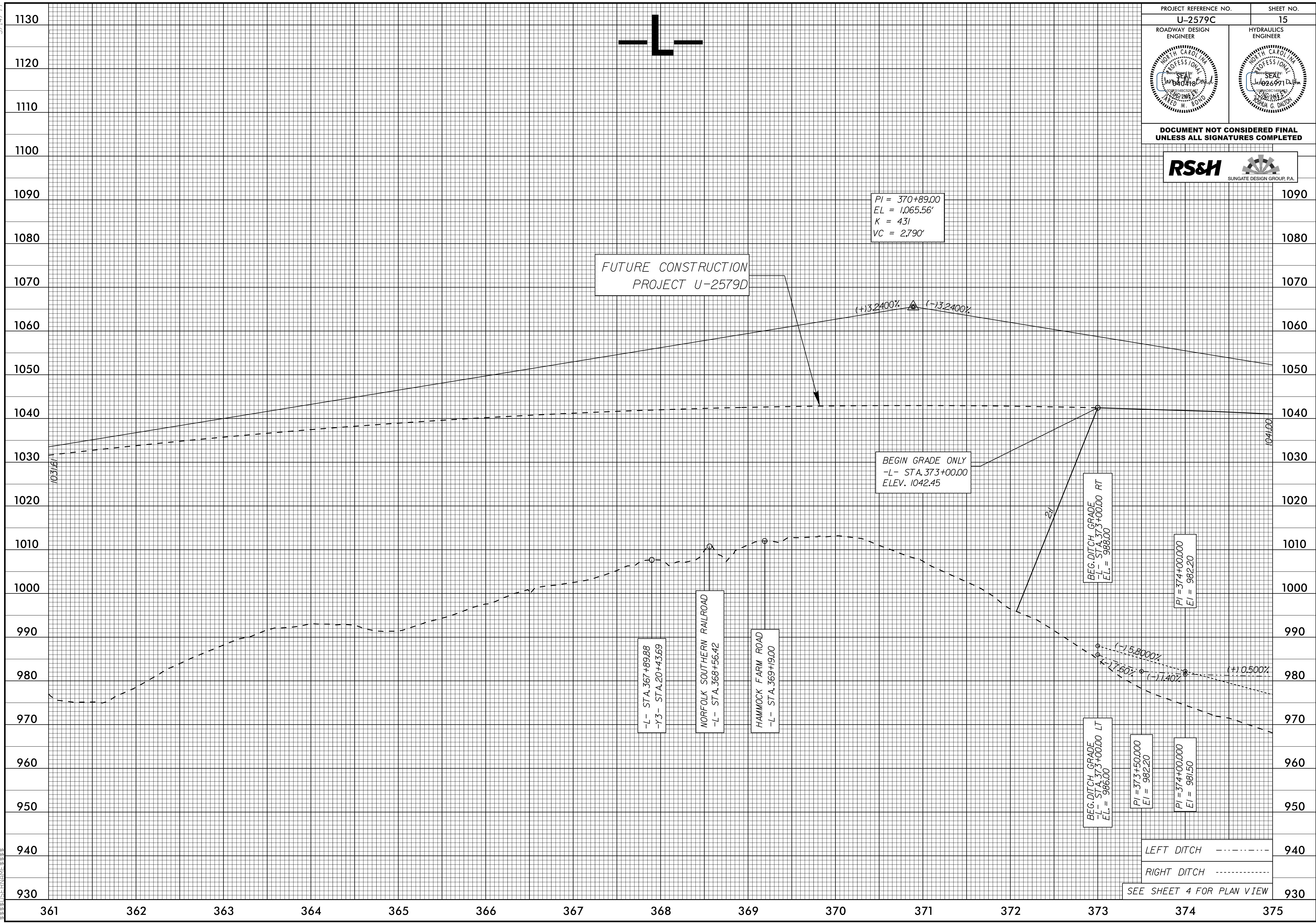
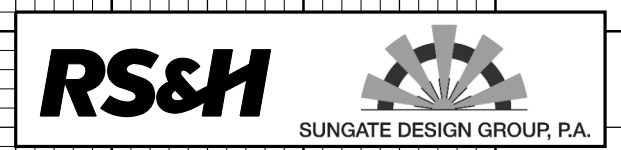
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 \$\$\$\$DISPERM\$\$\$\$



5/14/99

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>15</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**

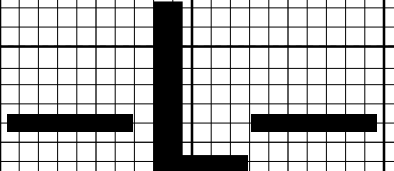


SEE SHEET 4 FOR PLAN VIEW

07 JUL 2017 15:35 U-2579C-pf1.L-15.dgn

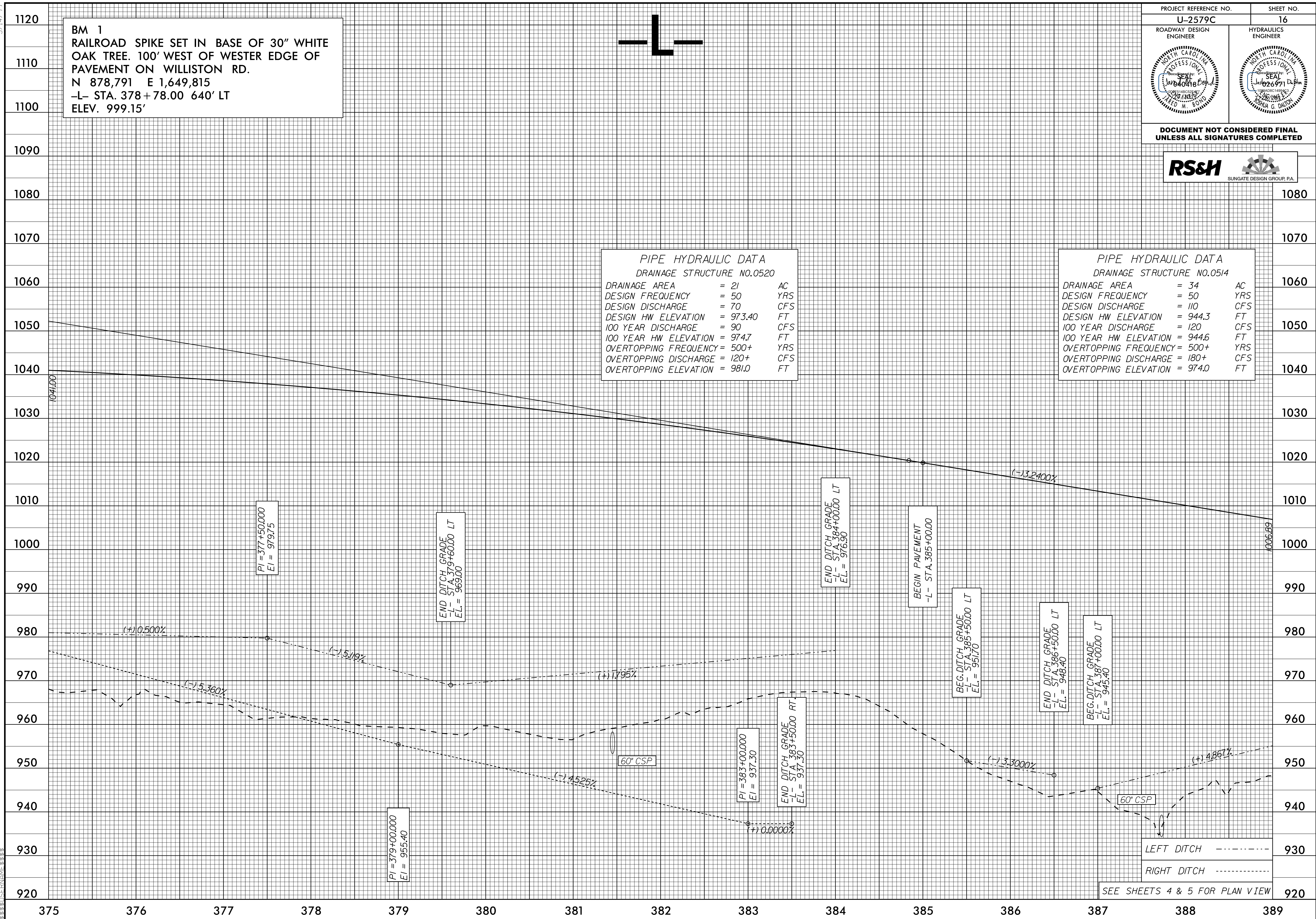
5/14/99

BM 1  
RAILROAD SPIKE SET IN BASE OF 30" WHITE  
OAK TREE. 100' WEST OF WESTER EDGE OF  
PAVEMENT ON WILLISTON RD.  
N 878,791 E 1,649,815  
-L- STA. 378+78.00 640' LT  
ELEV. 999.15'



PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>16</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



PIPE HYDRAULIC DATA  
DRAINAGE STRUCTURE NO.0520

DRAINAGE AREA	= 21	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 70	CFS
DESIGN HW ELEVATION	= 973.40	FT
100 YEAR DISCHARGE	= 90	CFS
100 YEAR HW ELEVATION	= 974.7	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 120+	CFS
OVERTOPPING ELEVATION	= 981.0	FT

PIPE HYDRAULIC DATA  
DRAINAGE STRUCTURE NO.0514

DRAINAGE AREA	= 34	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 110	CFS
DESIGN HW ELEVATION	= 944.3	FT
100 YEAR DISCHARGE	= 120	CFS
100 YEAR HW ELEVATION	= 944.6	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 180+	CFS
OVERTOPPING ELEVATION	= 974.0	FT

PI = 377+50.000  
EI = 979.75

END DITCH GRADE  
-L- STA. 379+60.00 LT  
EL. = 969.00

END DITCH GRADE  
-L- STA. 384+00.00 LT  
EL. = 976.90

BEGIN PAVEMENT  
-L- STA. 385+00.00

BEG. DITCH GRADE  
-L- STA. 385+50.00 LT  
EL. = 951.70

END DITCH GRADE  
-L- STA. 386+50.00 LT  
EL. = 948.40

BEG. DITCH GRADE  
-L- STA. 387+00.00 LT  
EL. = 945.40

PI = 379+00.000  
EI = 955.40

PI = 383+00.000  
EI = 937.30

END DITCH GRADE  
-L- STA. 383+50.00 RT  
EL. = 937.30

60' CSP

LEFT DITCH

RIGHT DITCH

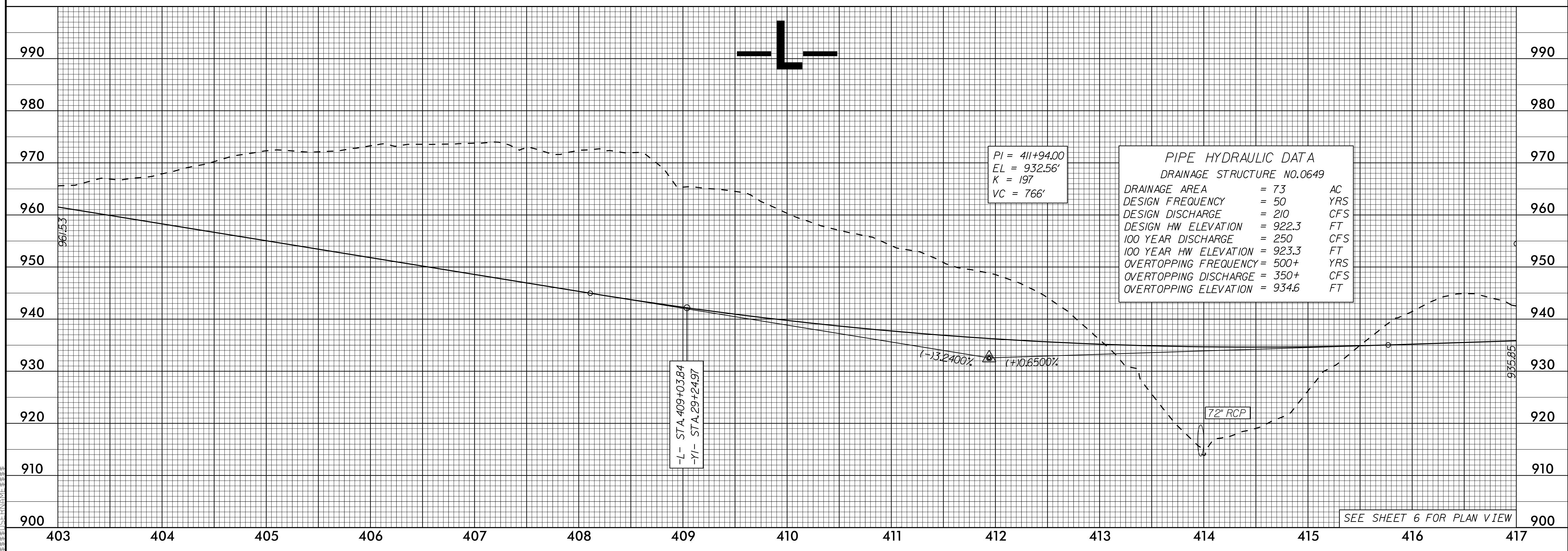
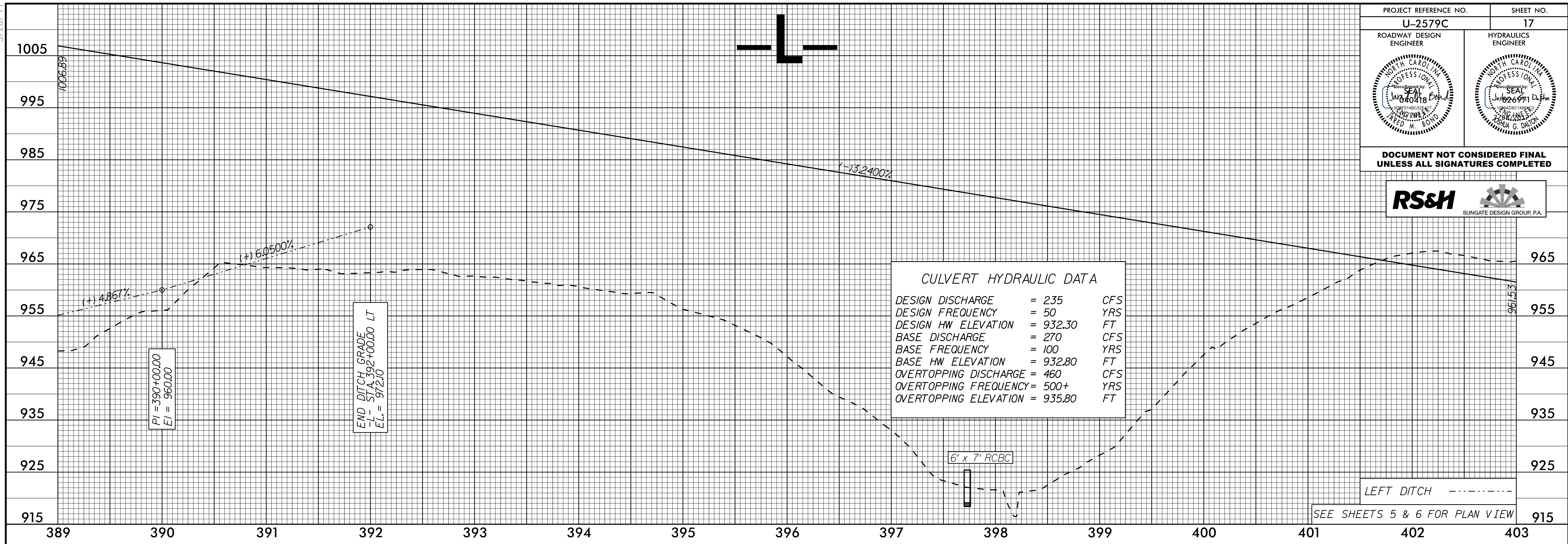
SEE SHEETS 4 & 5 FOR PLAN VIEW

07 JUL 2017 15:35 U-2579C-pl-16.dgn

5/28/19

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>17</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



07 JUL 2017 15:35 U-2579C-p1-L-17.dgn

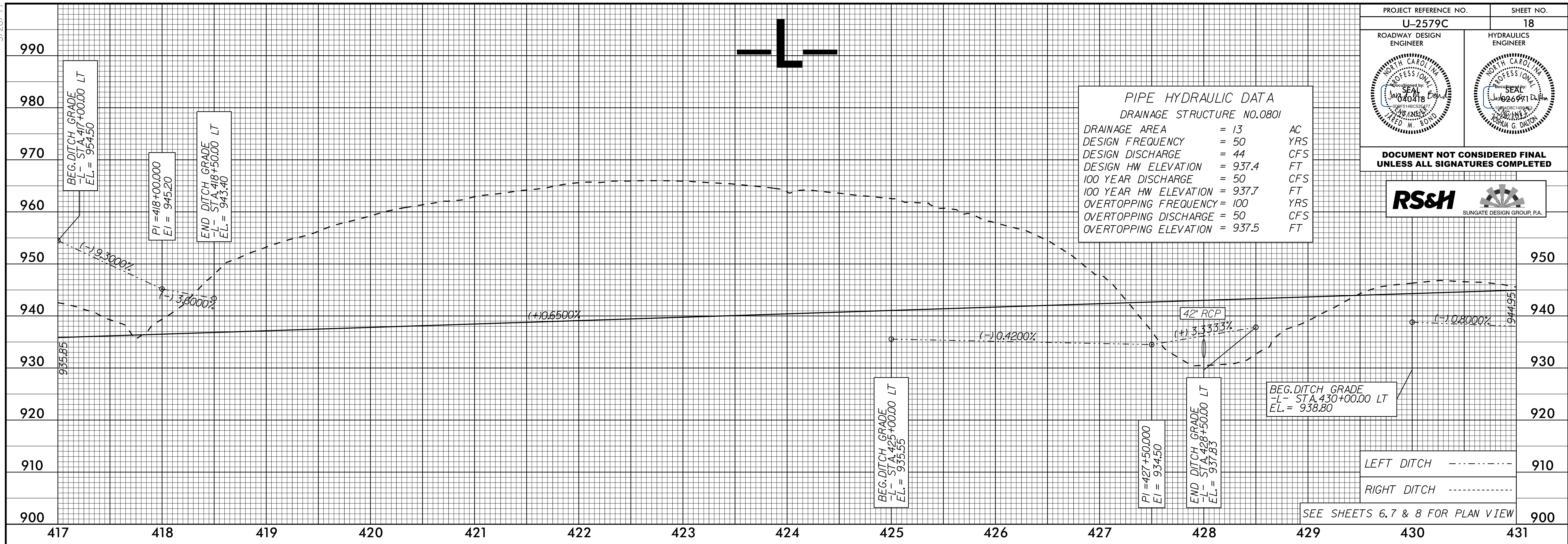
PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>18</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



**PIPE HYDRAULIC DATA**  
DRAINAGE STRUCTURE NO.0801

DRAINAGE AREA	= 13	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 44	CFS
DESIGN HW ELEVATION	= 937.4	FT
100 YEAR DISCHARGE	= 50	CFS
100 YEAR HW ELEVATION	= 937.7	FT
OVERTOPPING FREQUENCY	= 100	YRS
OVERTOPPING DISCHARGE	= 50	CFS
OVERTOPPING ELEVATION	= 937.5	FT



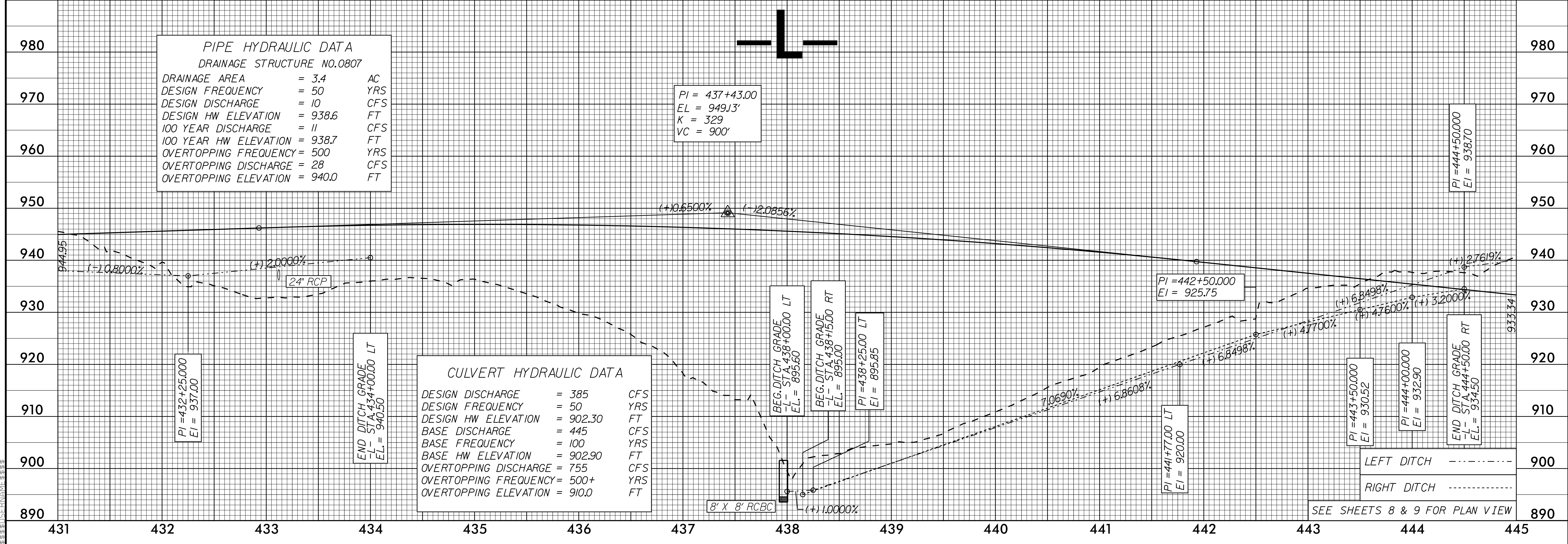
**PIPE HYDRAULIC DATA**  
DRAINAGE STRUCTURE NO.0807

DRAINAGE AREA	= 3.4	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 10	CFS
DESIGN HW ELEVATION	= 938.6	FT
100 YEAR DISCHARGE	= 11	CFS
100 YEAR HW ELEVATION	= 938.7	FT
OVERTOPPING FREQUENCY	= 500	YRS
OVERTOPPING DISCHARGE	= 28	CFS
OVERTOPPING ELEVATION	= 940.0	FT

PI = 437+43.00  
EL = 949.13'  
K = 329  
VC = 900'

**CULVERT HYDRAULIC DATA**

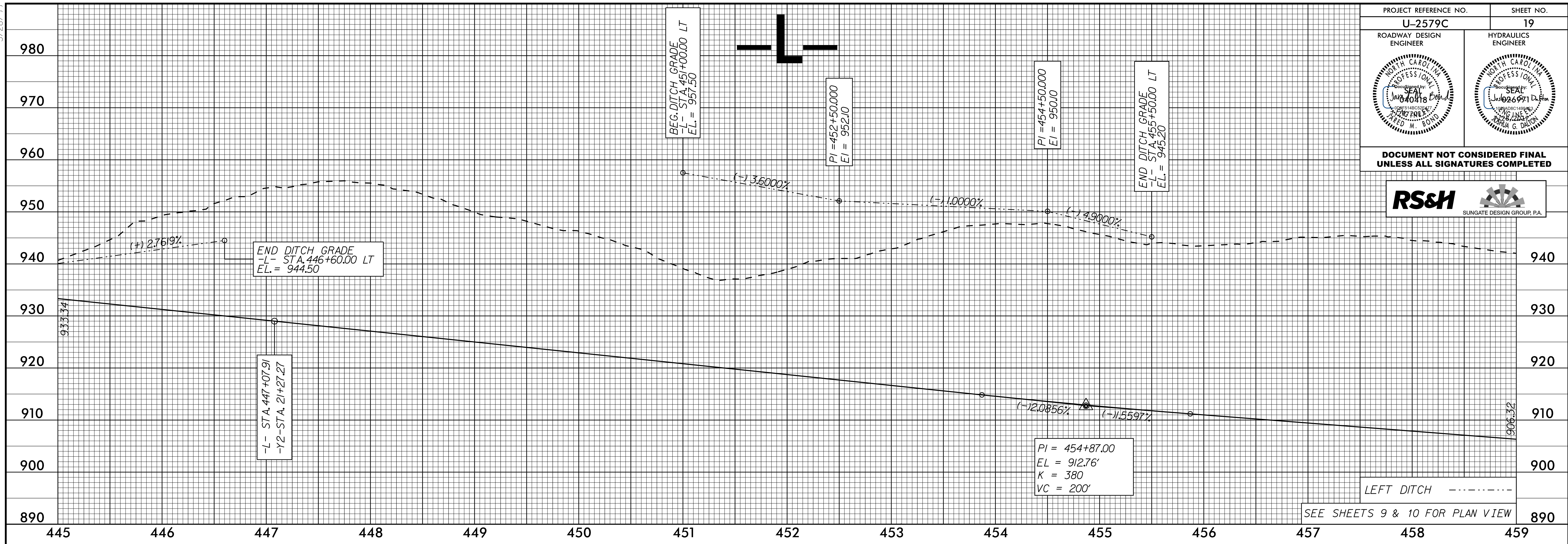
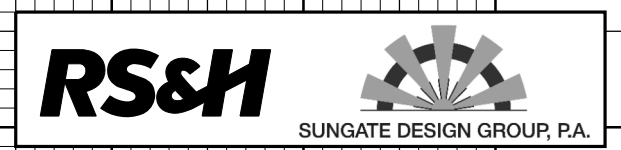
DESIGN DISCHARGE	= 385	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 902.30	FT
BASE DISCHARGE	= 445	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 902.90	FT
OVERTOPPING DISCHARGE	= 755	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 910.0	FT



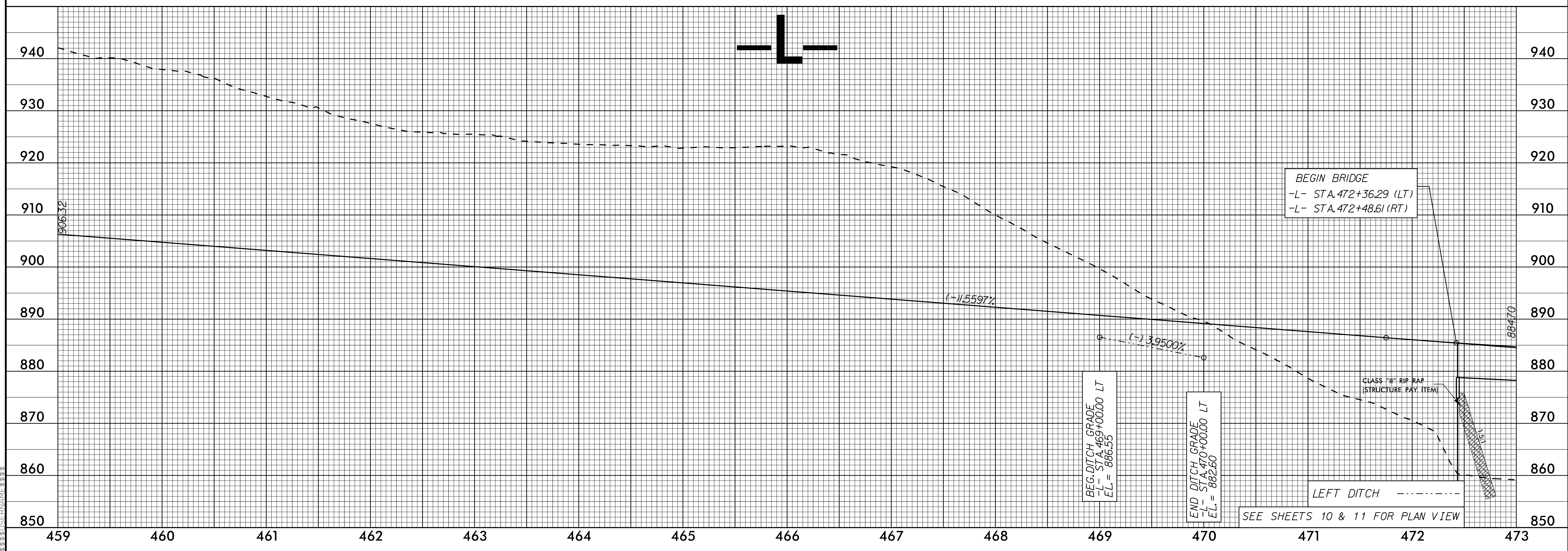
5/28/99

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>19</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



LEFT DITCH - - - - -  
SEE SHEETS 9 & 10 FOR PLAN VIEW



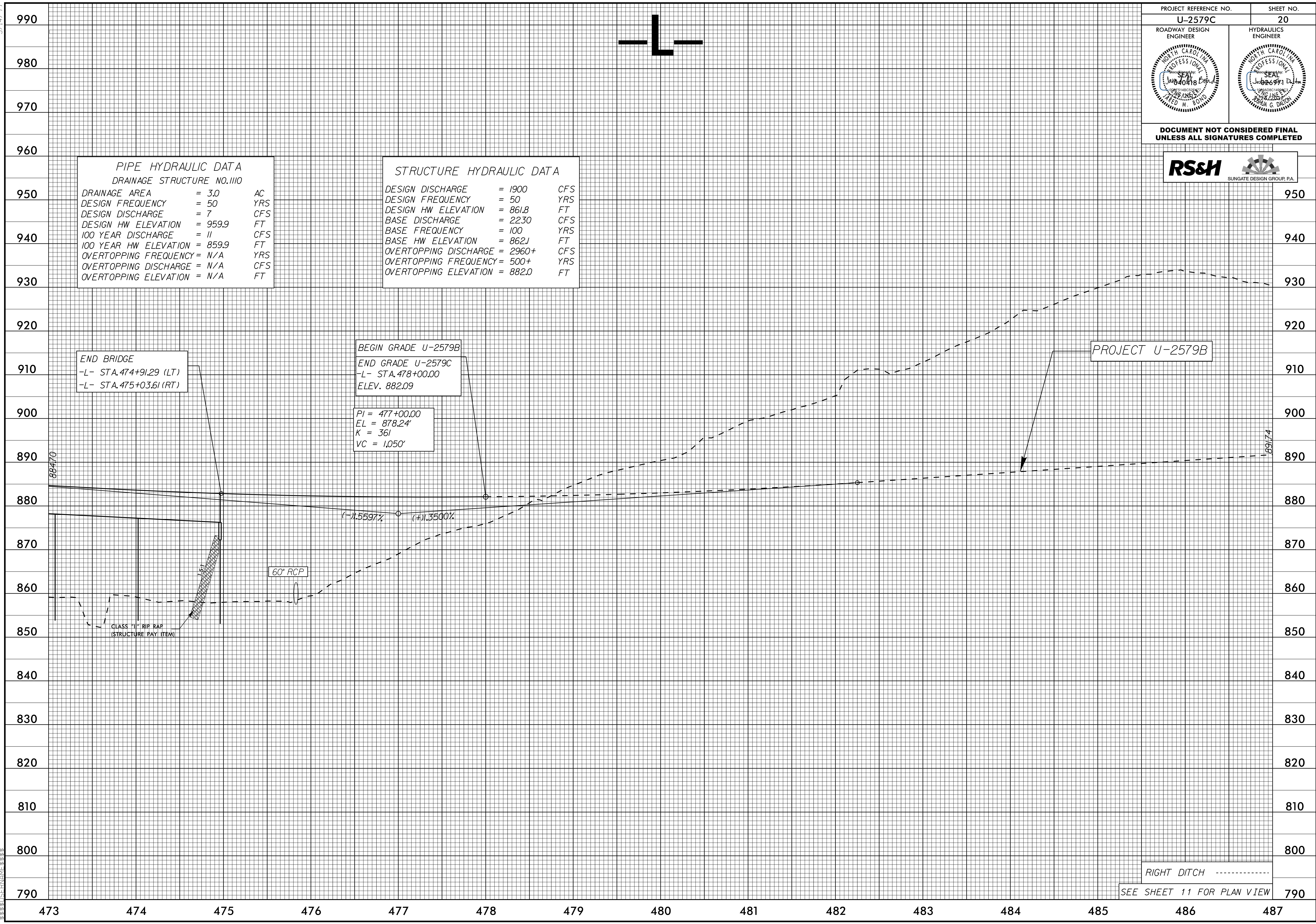
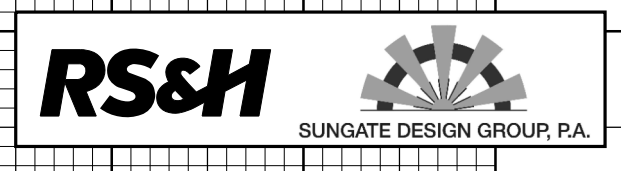
LEFT DITCH - - - - -  
SEE SHEETS 10 & 11 FOR PLAN VIEW

07 JUL 2017 15:35 U-2579C-p11-19.dgn

5/14/99

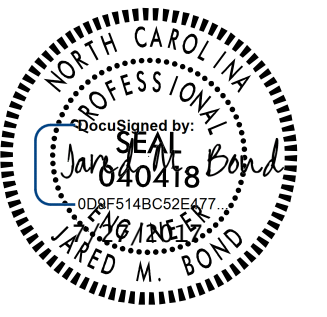
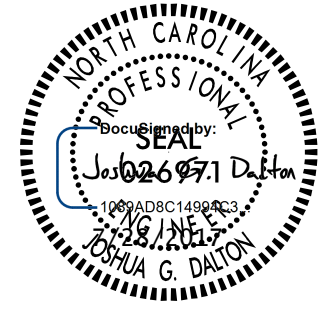
PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>20</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

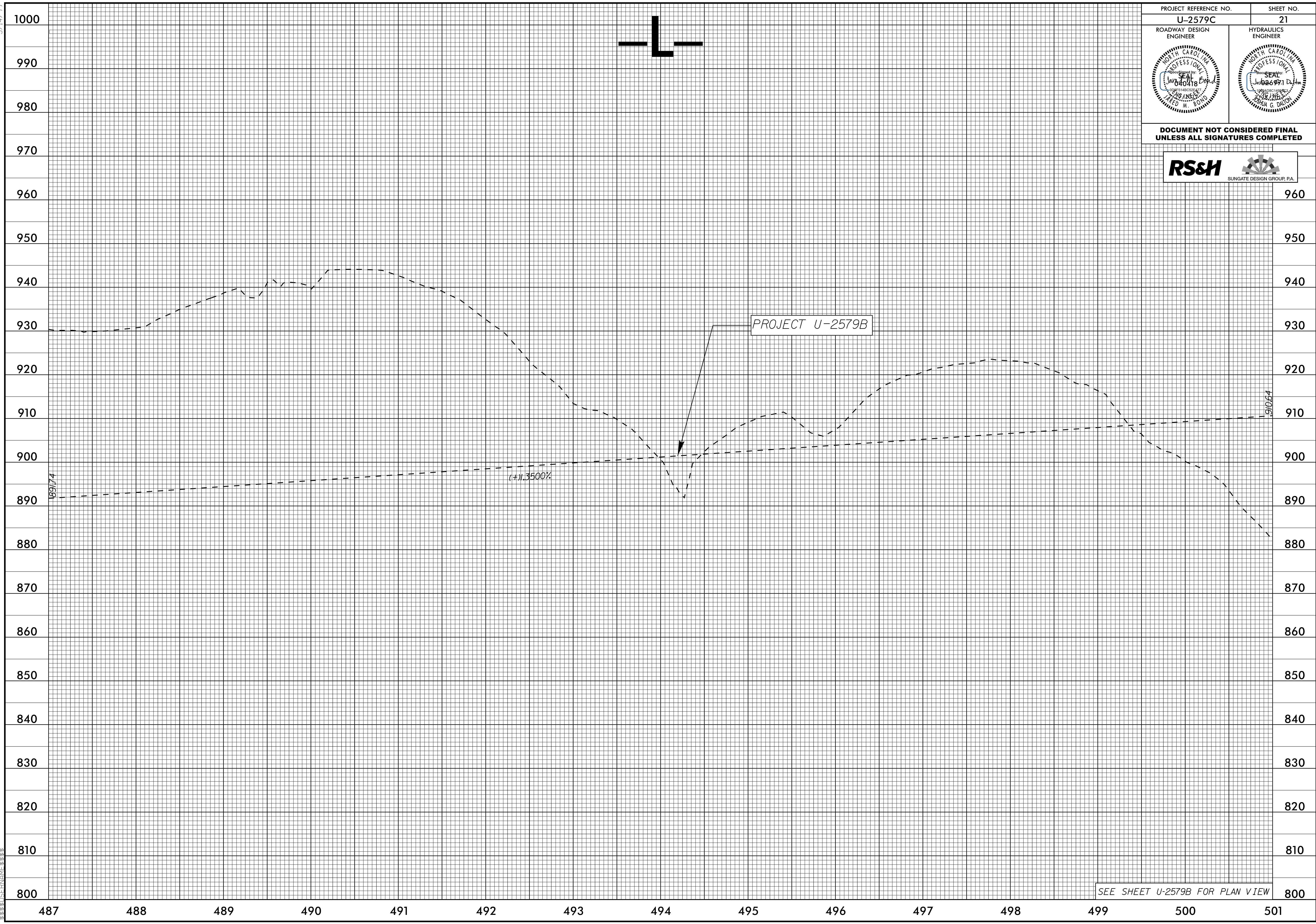
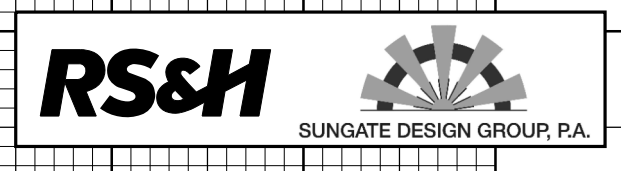


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5/14/99

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>21</b>
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 


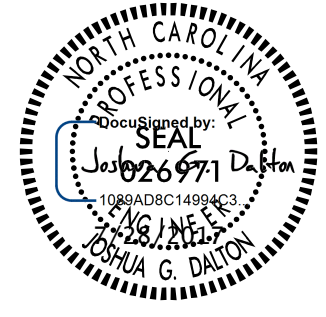
**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



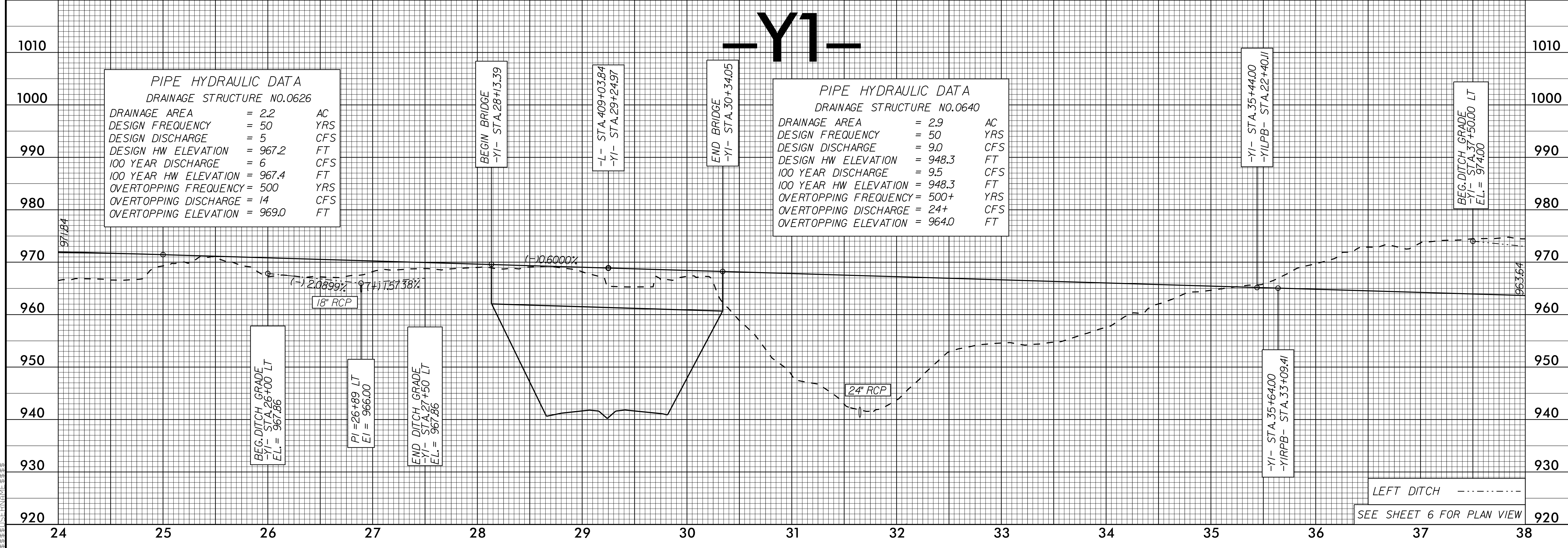
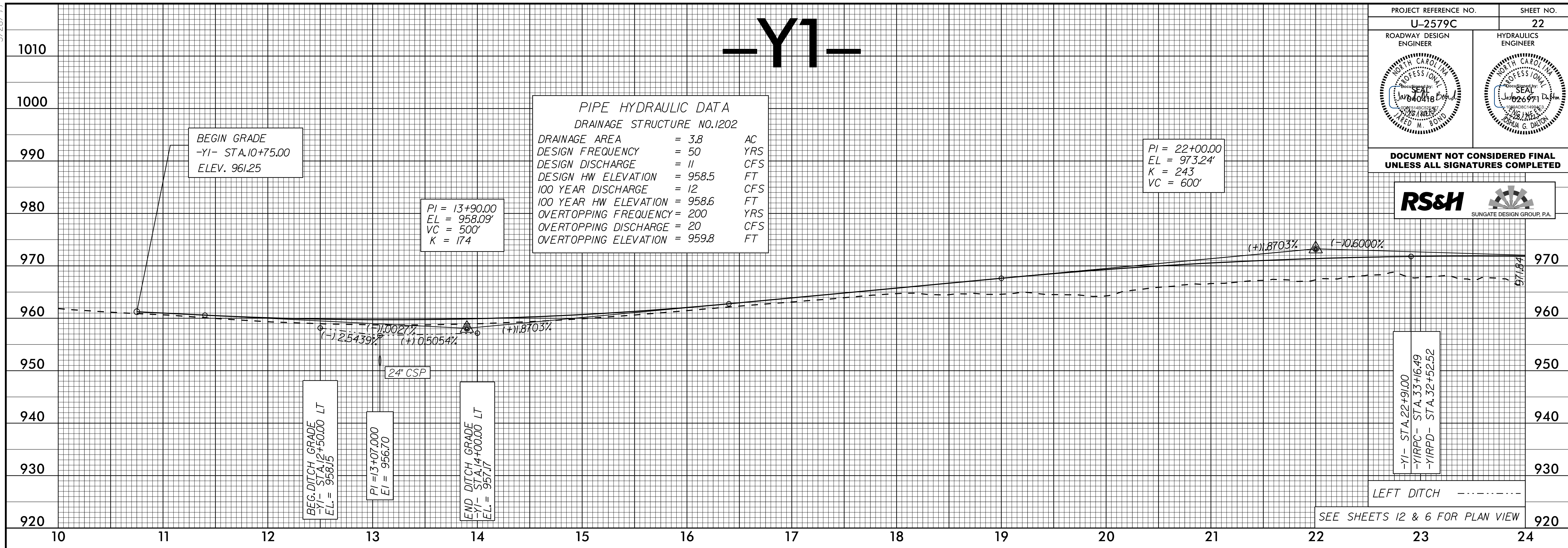
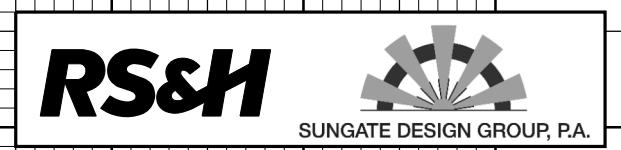
SEE SHEET U-2579B FOR PLAN VIEW

07 JUL 2017 15:35  
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SUNGATE DESIGN GROUP, P.A.

5/28/99

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>22</b>
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



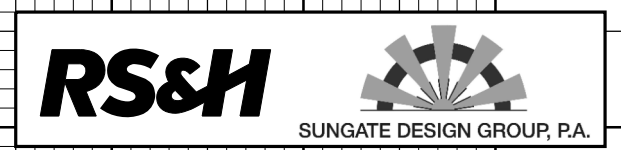
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# -Y1-

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>23</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

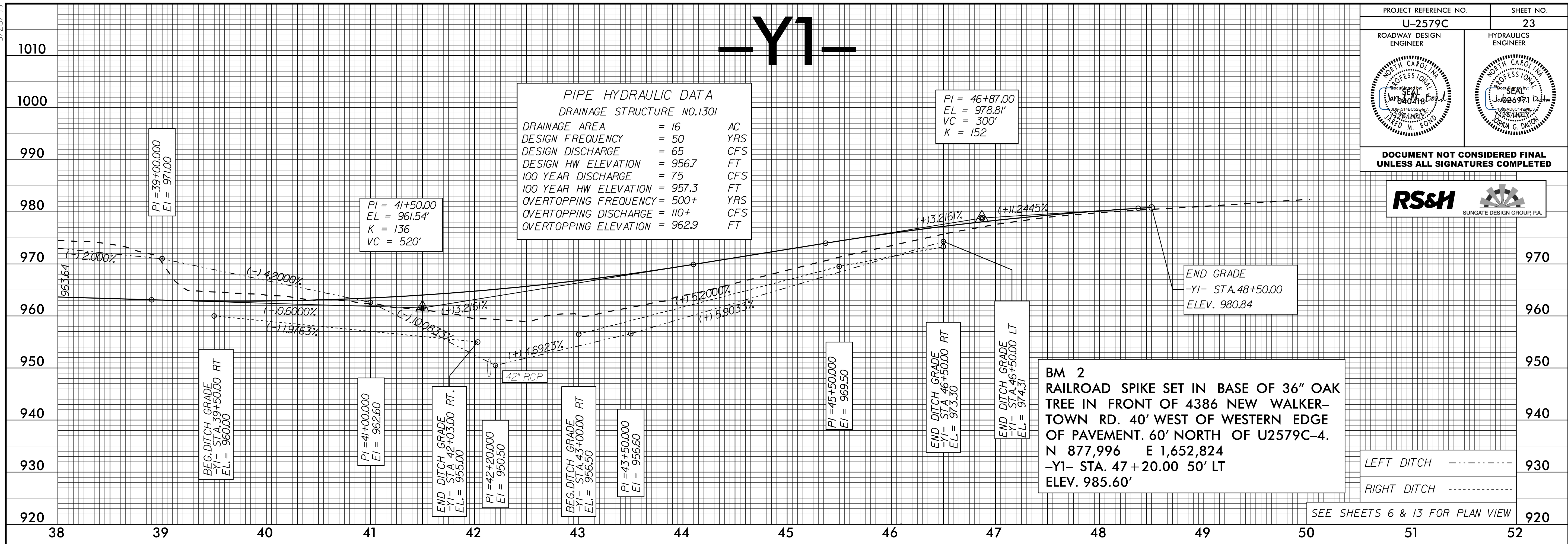
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



**PIPE HYDRAULIC DATA**  
DRAINAGE STRUCTURE NO.1301

DRAINAGE AREA	= 16	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 65	CFS
DESIGN HW ELEVATION	= 956.7	FT
100 YEAR DISCHARGE	= 75	CFS
100 YEAR HW ELEVATION	= 957.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 110+	CFS
OVERTOPPING ELEVATION	= 962.9	FT

PI = 46+87.00  
EL = 978.81'  
VC = 300'  
K = 152



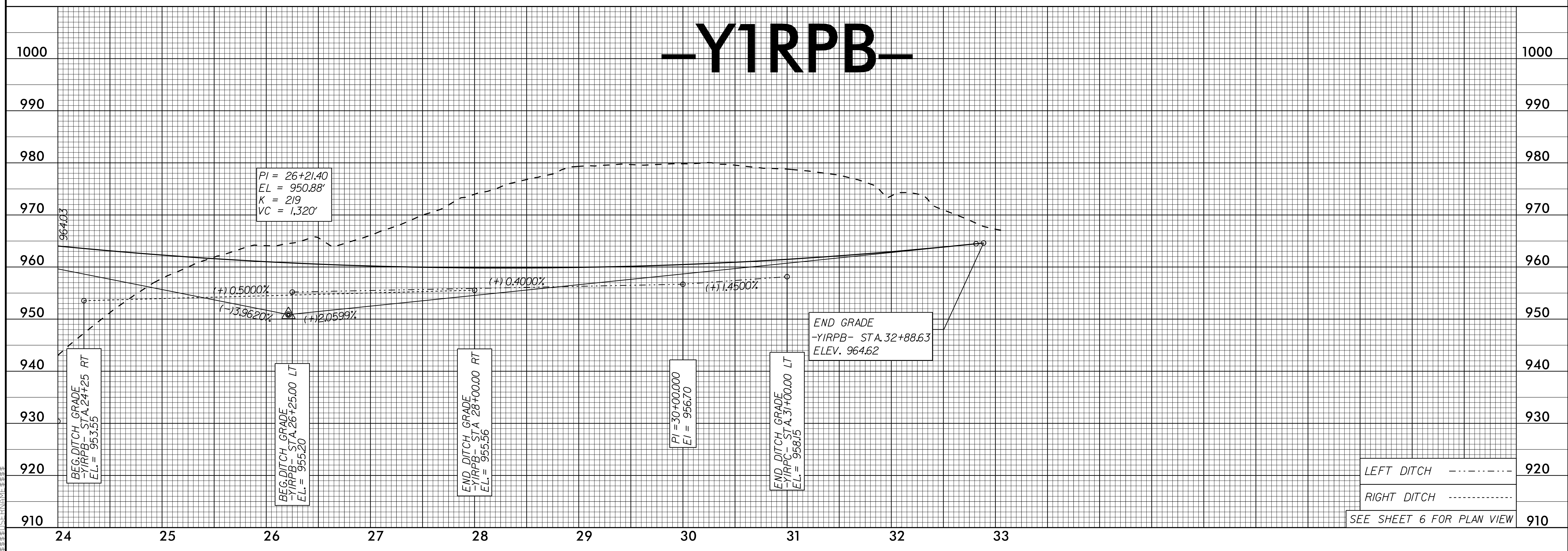
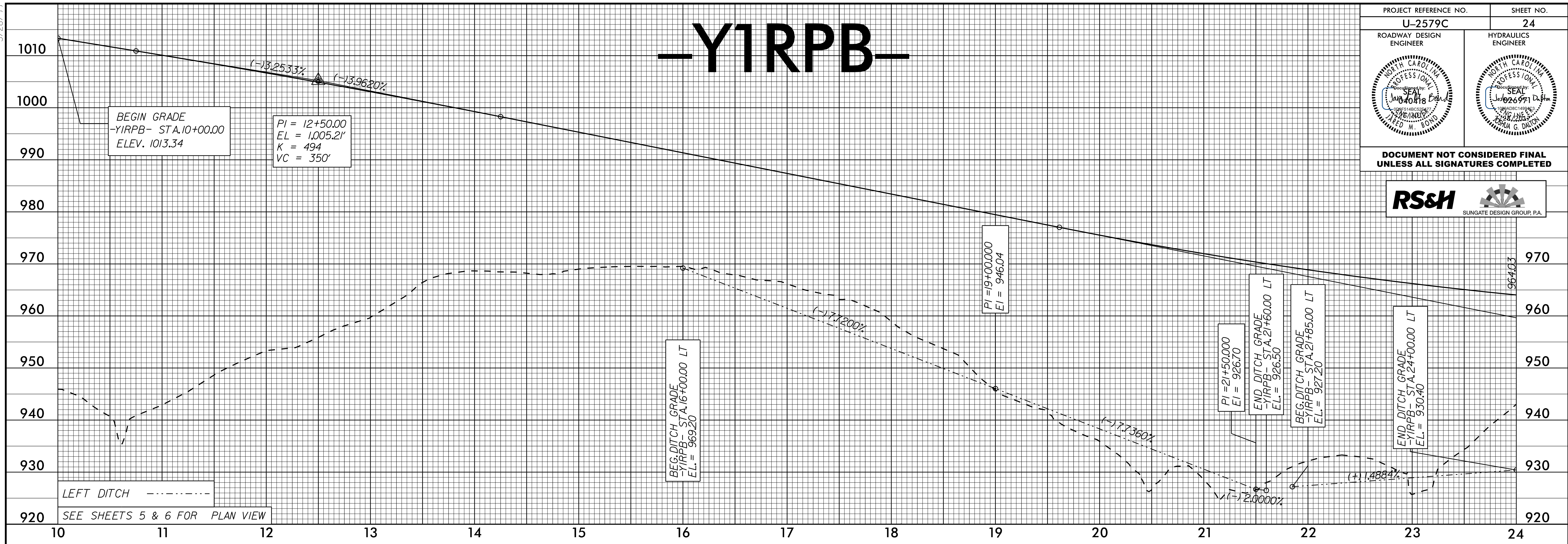
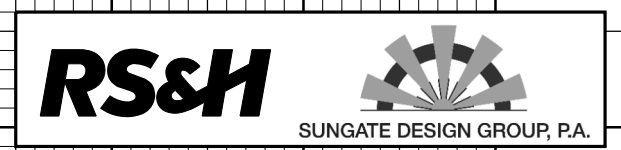
**BM 2**  
RAILROAD SPIKE SET IN BASE OF 36" OAK TREE IN FRONT OF 4386 NEW WALKER-TOWN RD. 40' WEST OF WESTERN EDGE OF PAVEMENT. 60' NORTH OF U2579C-4.  
N 877,996 E 1,652,824  
-Y1- STA. 47+20.00 50' LT  
ELEV. 985.60'

LEFT DITCH -----  
RIGHT DITCH -----

SEE SHEETS 6 & 13 FOR PLAN VIEW

5/28/19

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>24</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



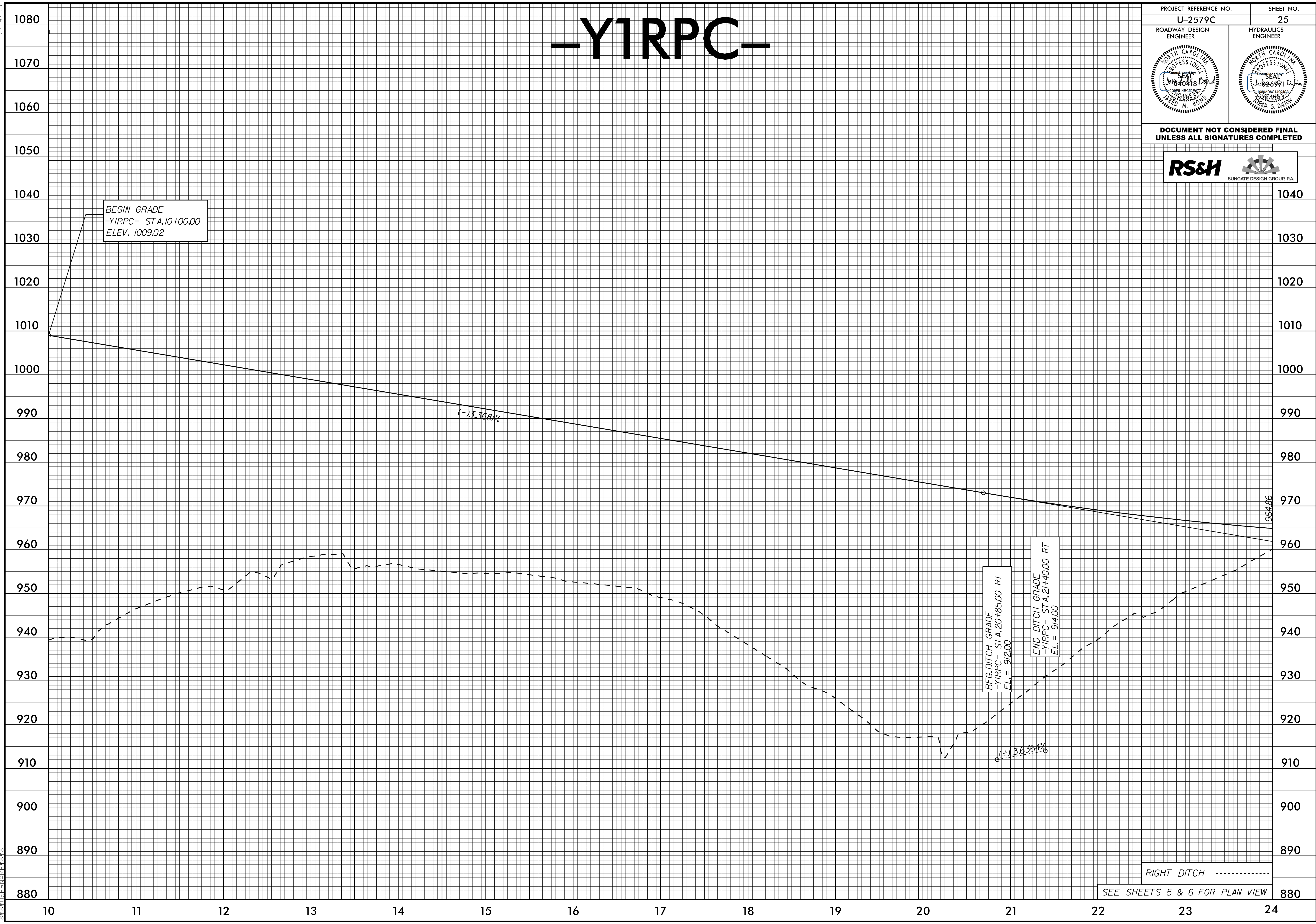
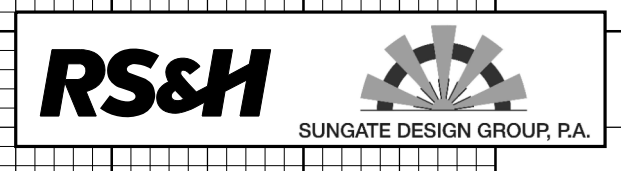
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5/14/99

# -YIRPC-

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>25</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



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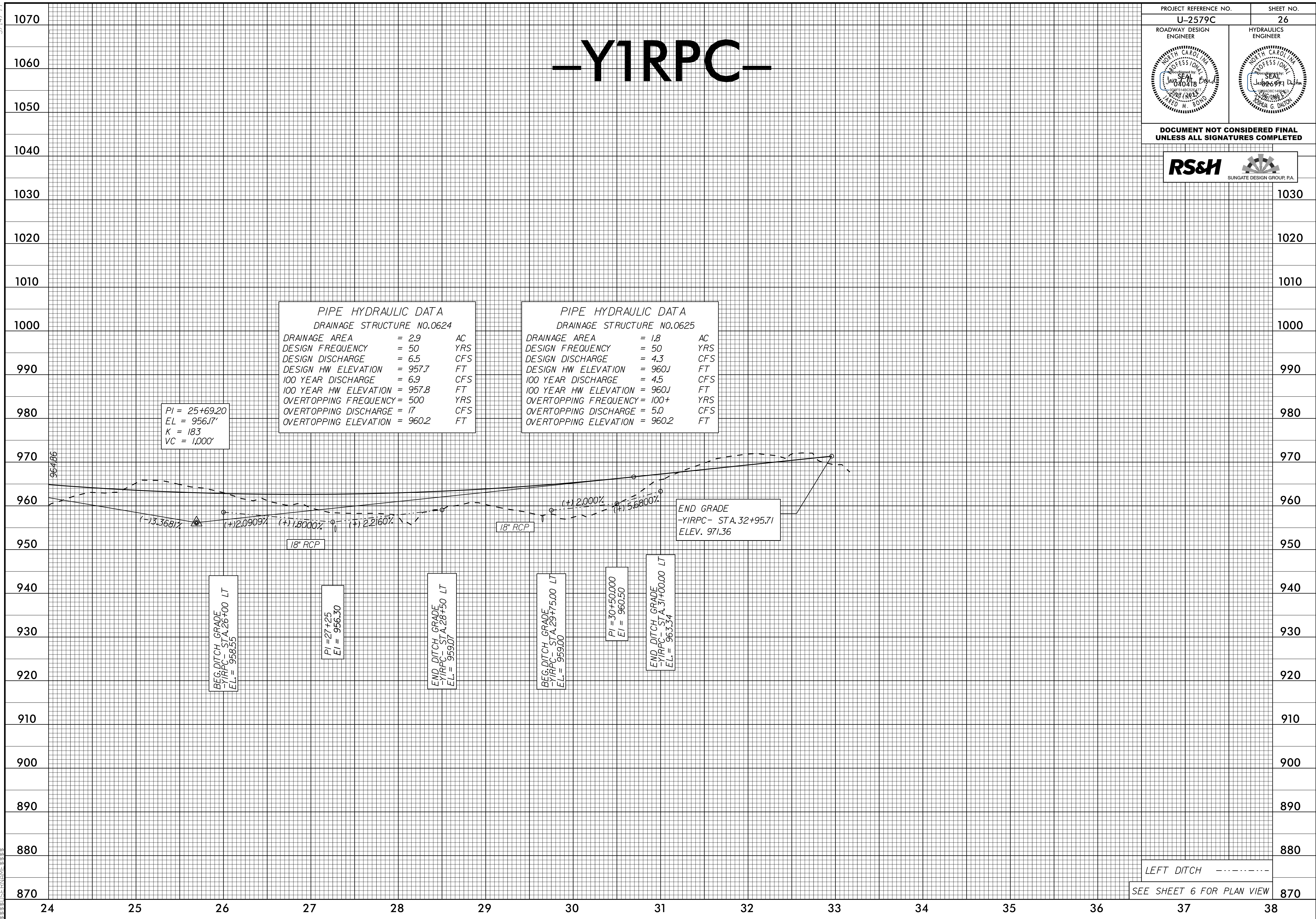
5/14/99

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>26</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



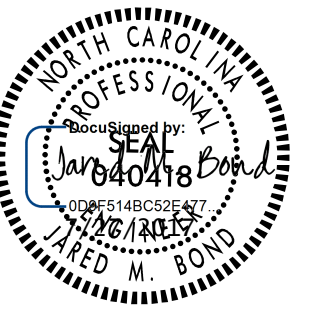
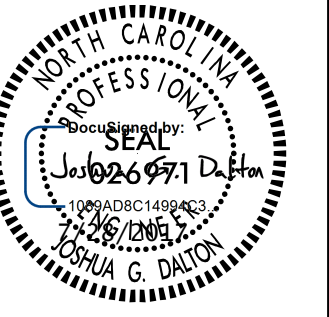
# -YIRPC-



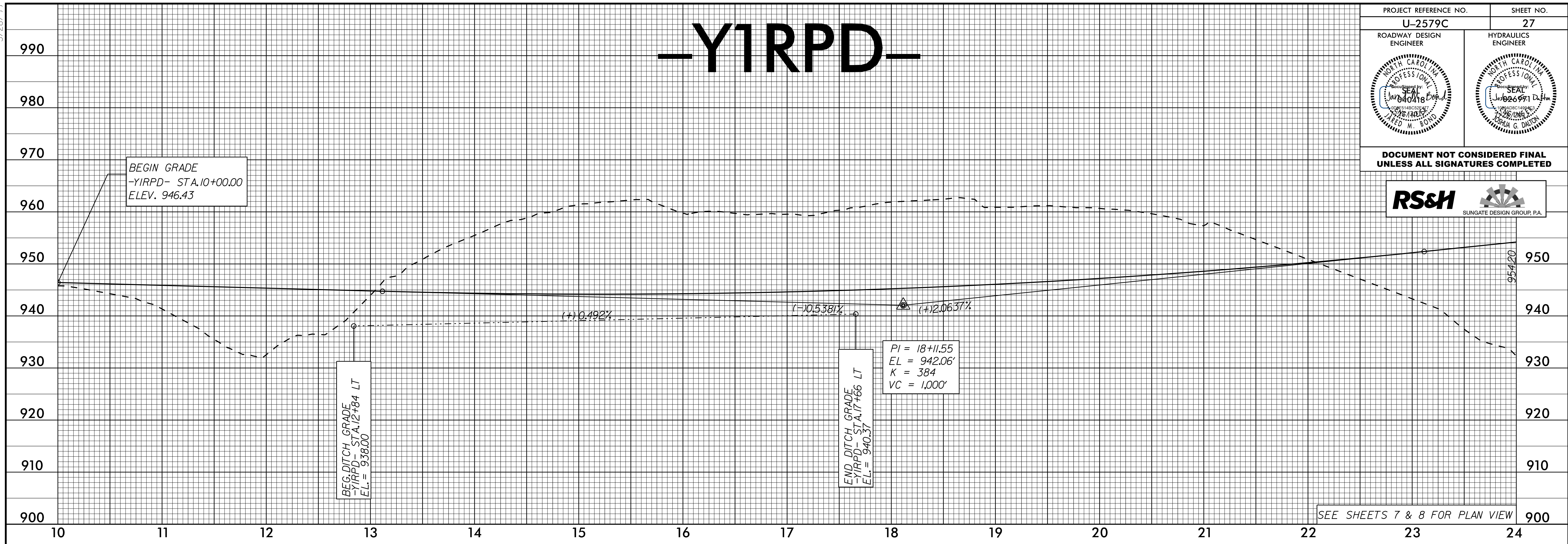
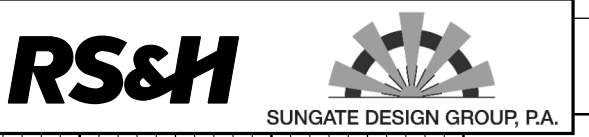
LEFT DITCH - - - - -  
SEE SHEET 6 FOR PLAN VIEW

07 JUL 2017 15:35  
P:\Projects\U-2579C\p1\_YIRPC\_26.dgn  
RS&H

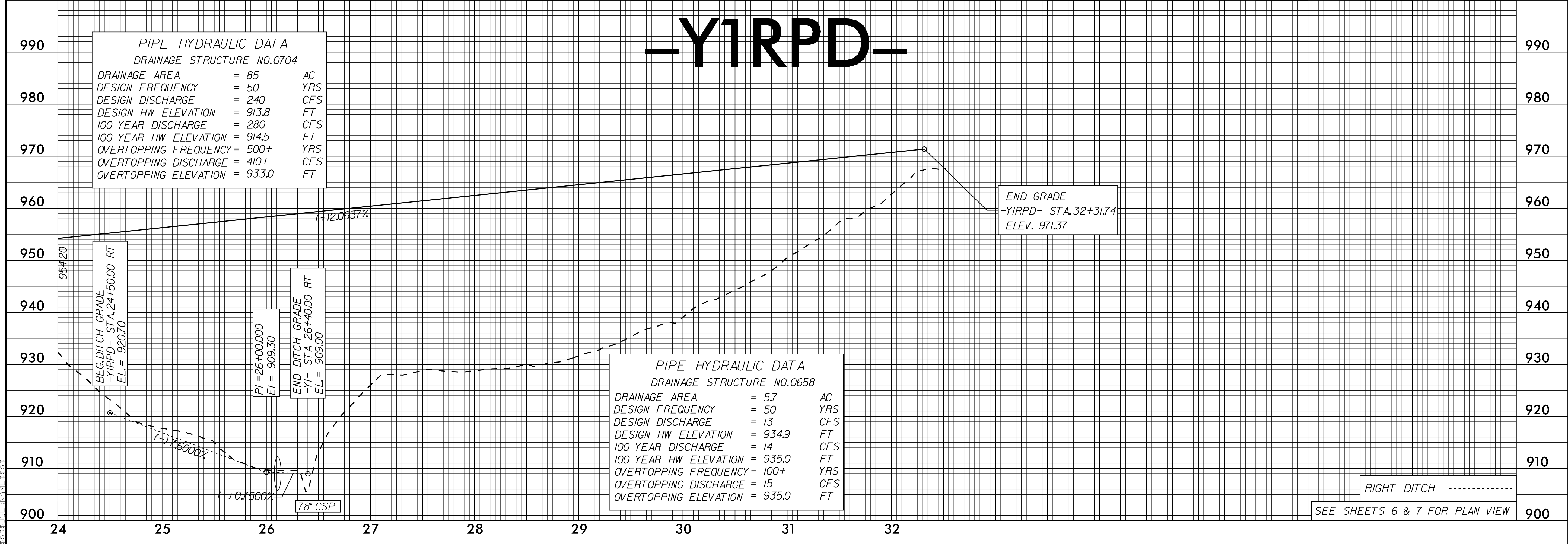
5/28/99

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>27</b>
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



SEE SHEETS 7 & 8 FOR PLAN VIEW



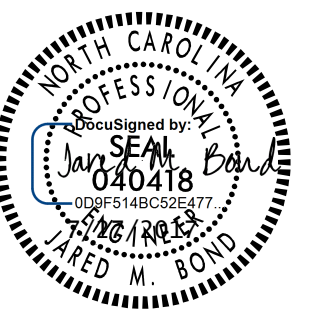
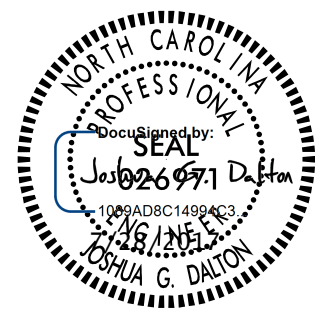
RIGHT DITCH

SEE SHEETS 6 & 7 FOR PLAN VIEW

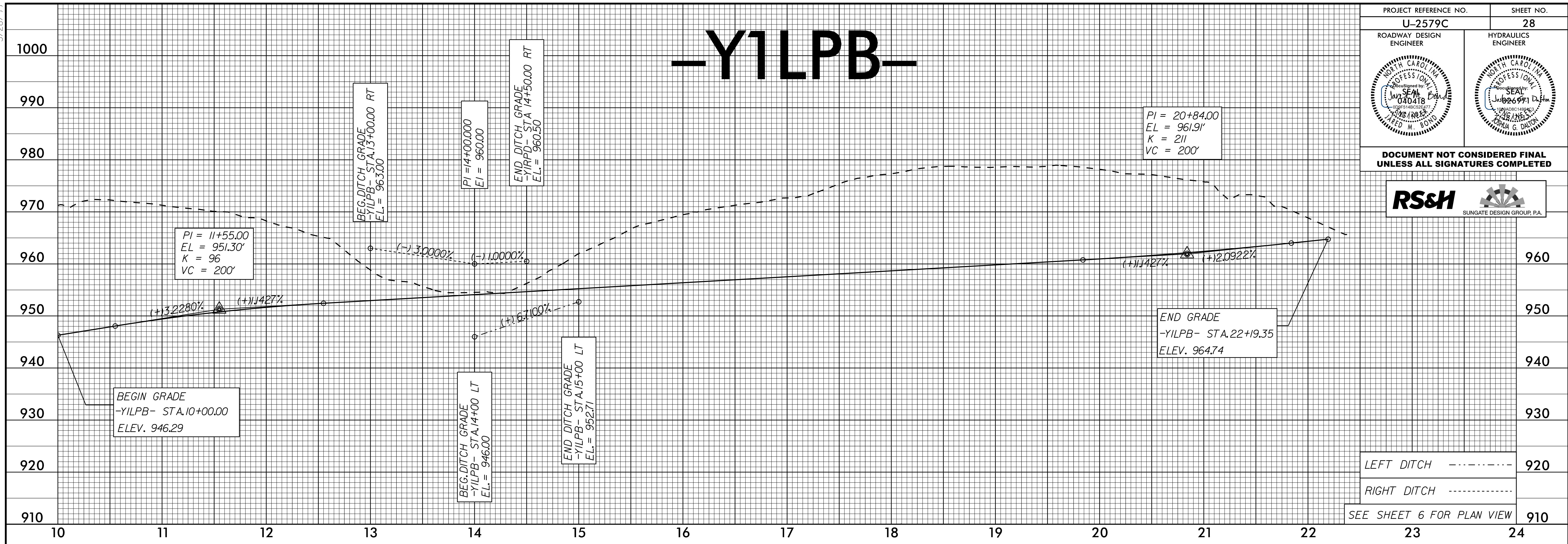
07 JUL 2017 15:35 U-2579C-p1-YIRPD-27.dgn

5/28/19

# -Y1LPB-

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>28</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	

**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



LEFT DITCH -----

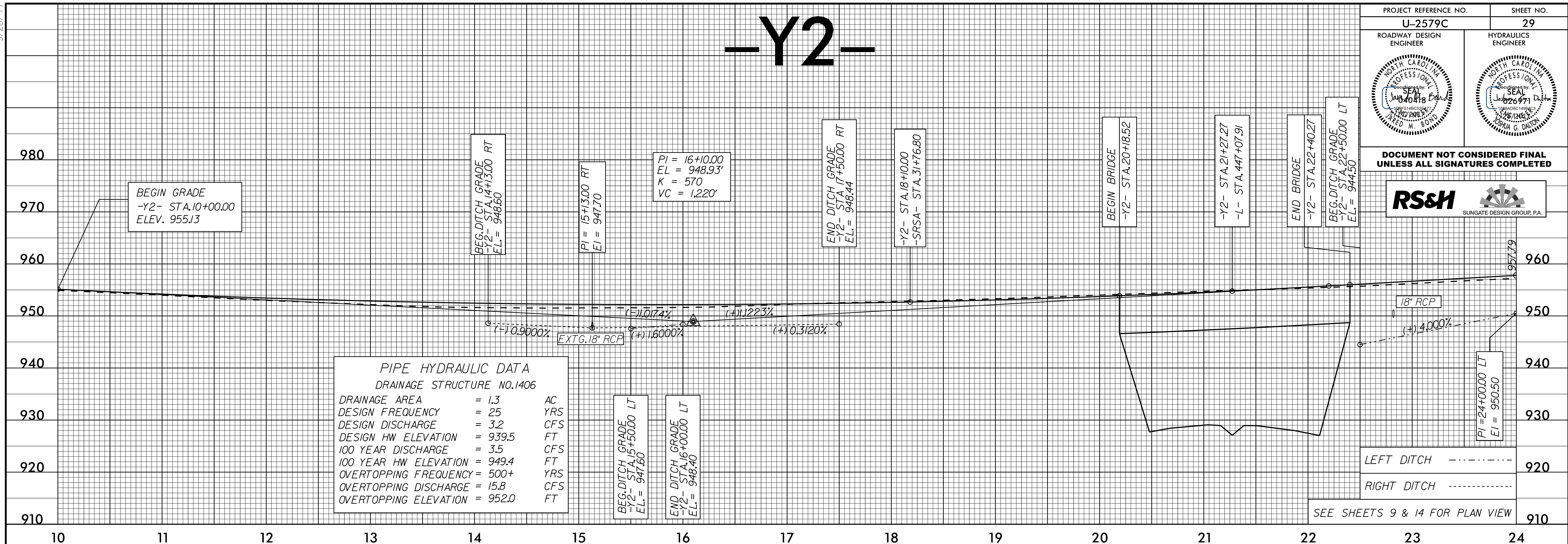
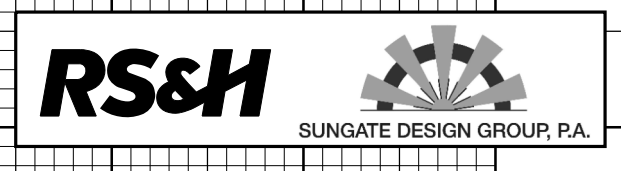
RIGHT DITCH -----

SEE SHEET 6 FOR PLAN VIEW

5/28/99

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>29</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PIPE HYDRAULIC DATA	
DRAINAGE STRUCTURE NO.1406	
DRAINAGE AREA	= 1.3 AC
DESIGN FREQUENCY	= 25 YRS
DESIGN DISCHARGE	= 3.2 CFS
DESIGN HW ELEVATION	= 939.5 FT
100 YEAR DISCHARGE	= 3.5 CFS
100 YEAR HW ELEVATION	= 949.4 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 15.8 CFS
OVERTOPPING ELEVATION	= 952.0 FT

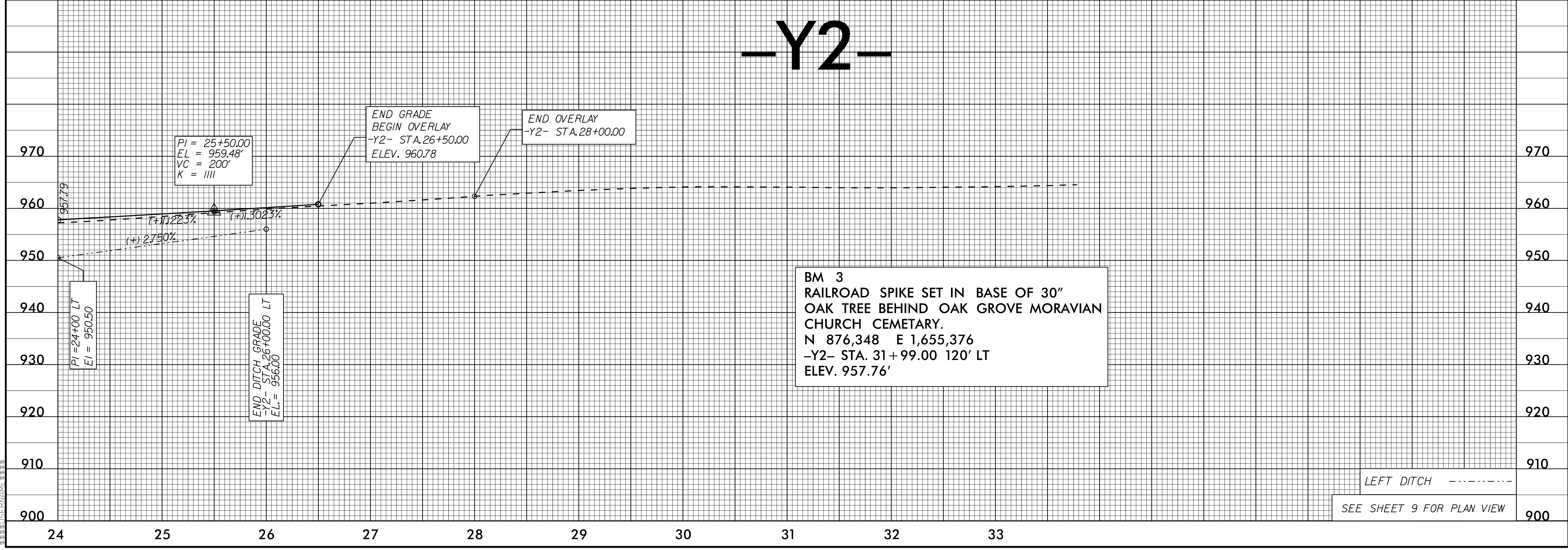
LEFT DITCH -----

RIGHT DITCH -----

SEE SHEETS 9 & 14 FOR PLAN VIEW

# -Y2-

# -Y2-



BM 3  
RAILROAD SPIKE SET IN BASE OF 30"  
OAK TREE BEHIND OAK GROVE MORAVIAN  
CHURCH CEMETARY.  
N 876,348 E 1,655,376  
-Y2- STA. 31+99.00 120' LT  
ELEV. 957.76'

LEFT DITCH -----

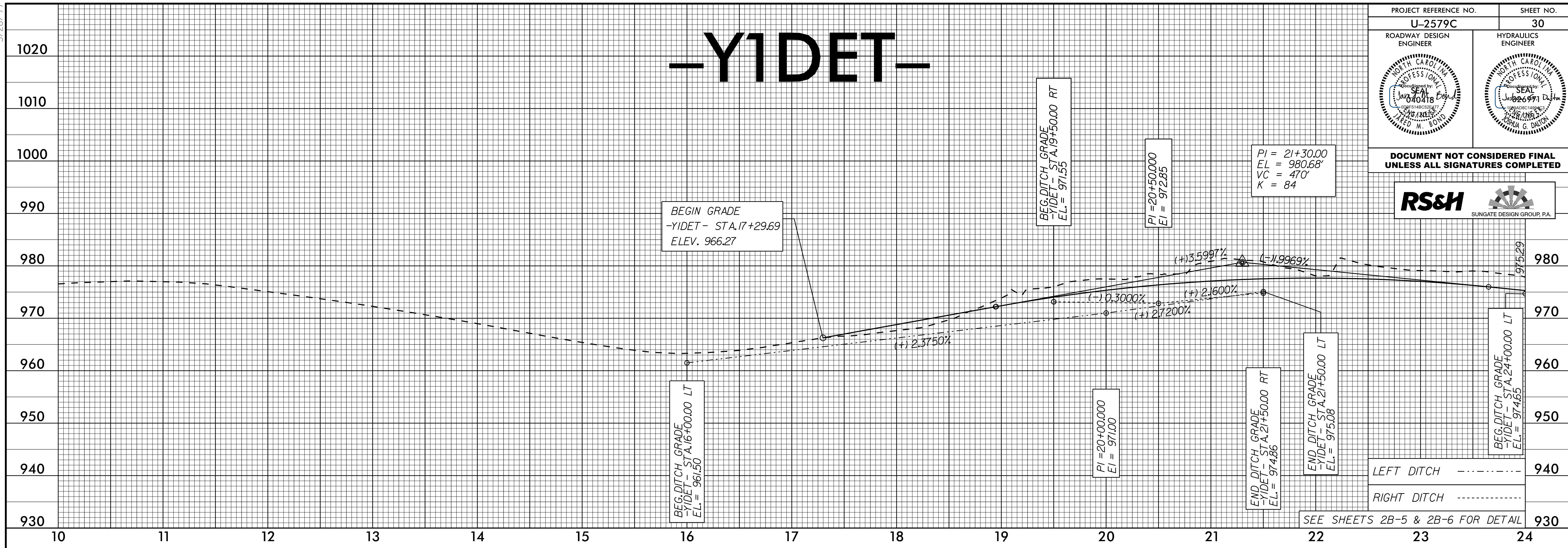
SEE SHEET 9 FOR PLAN VIEW

07-JUL-2017 09:47  
C:\Users\p1\Documents\U-2579C-p1\_Y2-29.dgn

5/28/99

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>30</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

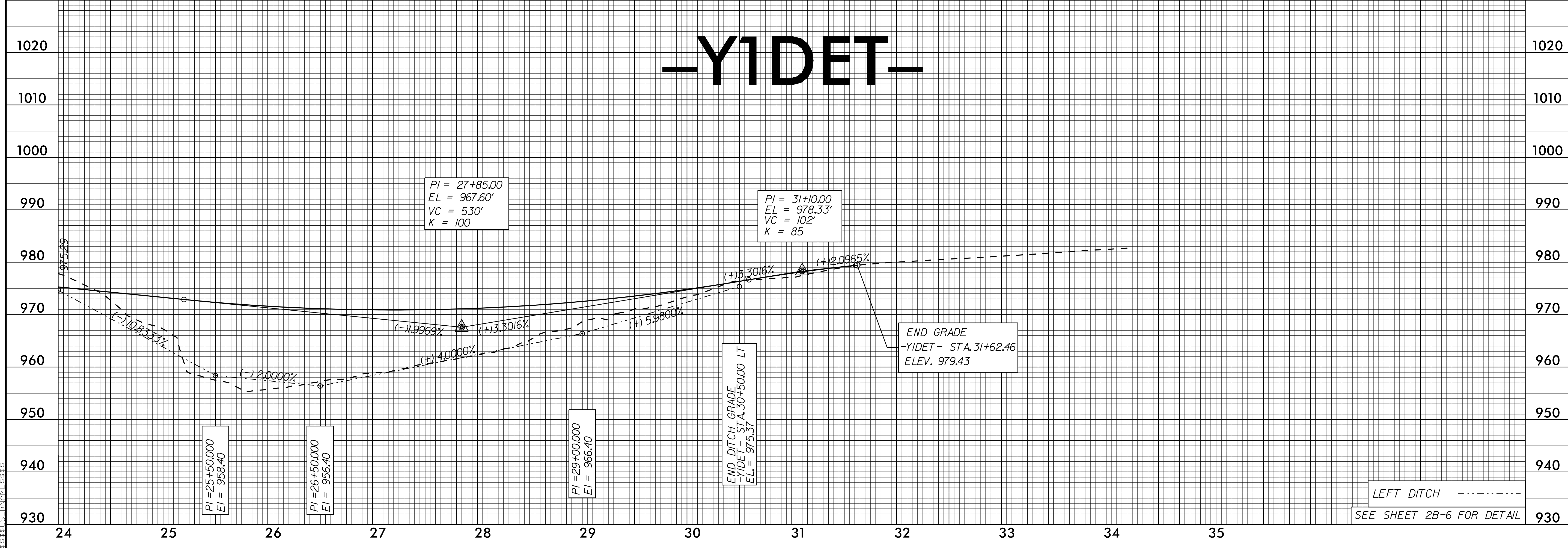


LEFT DITCH -----

RIGHT DITCH -----

SEE SHEETS 2B-5 & 2B-6 FOR DETAIL

07 JUL 2017 15:35  
P:\Projects\U-2579C-p1-YIDET\_30.dgn  
RS&H



LEFT DITCH -----

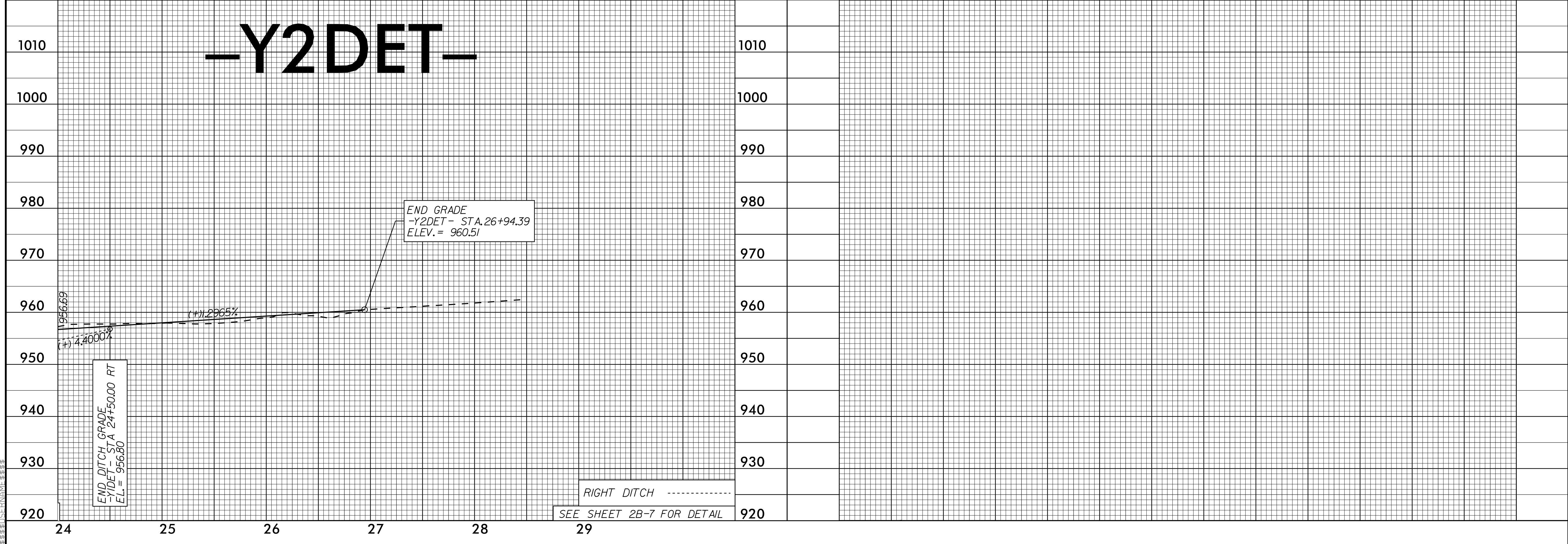
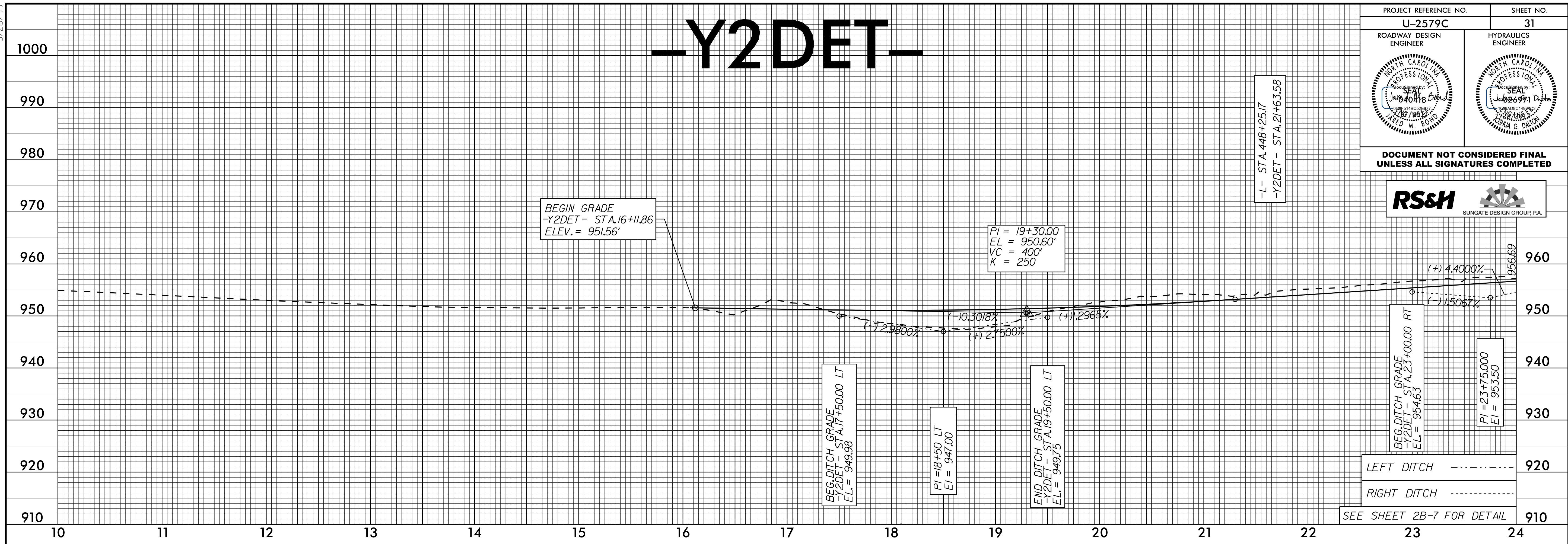
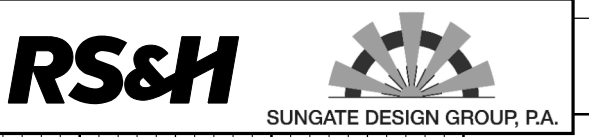
SEE SHEET 2B-6 FOR DETAIL



5/28/19

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>31</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

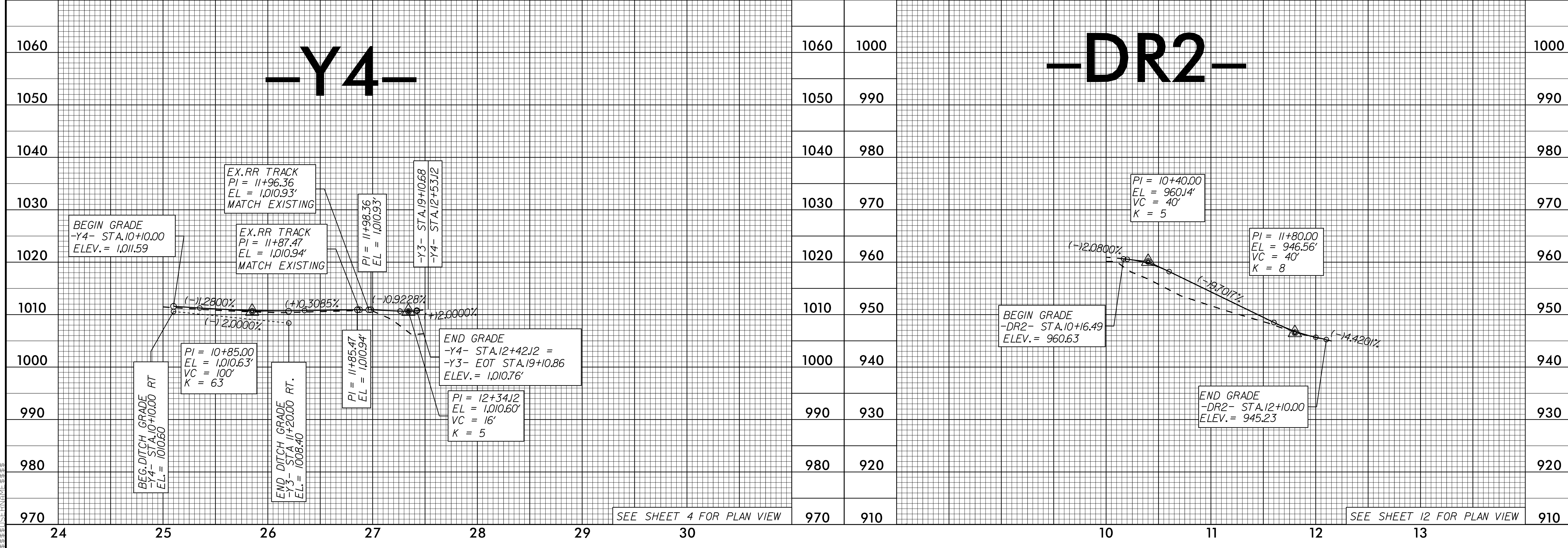
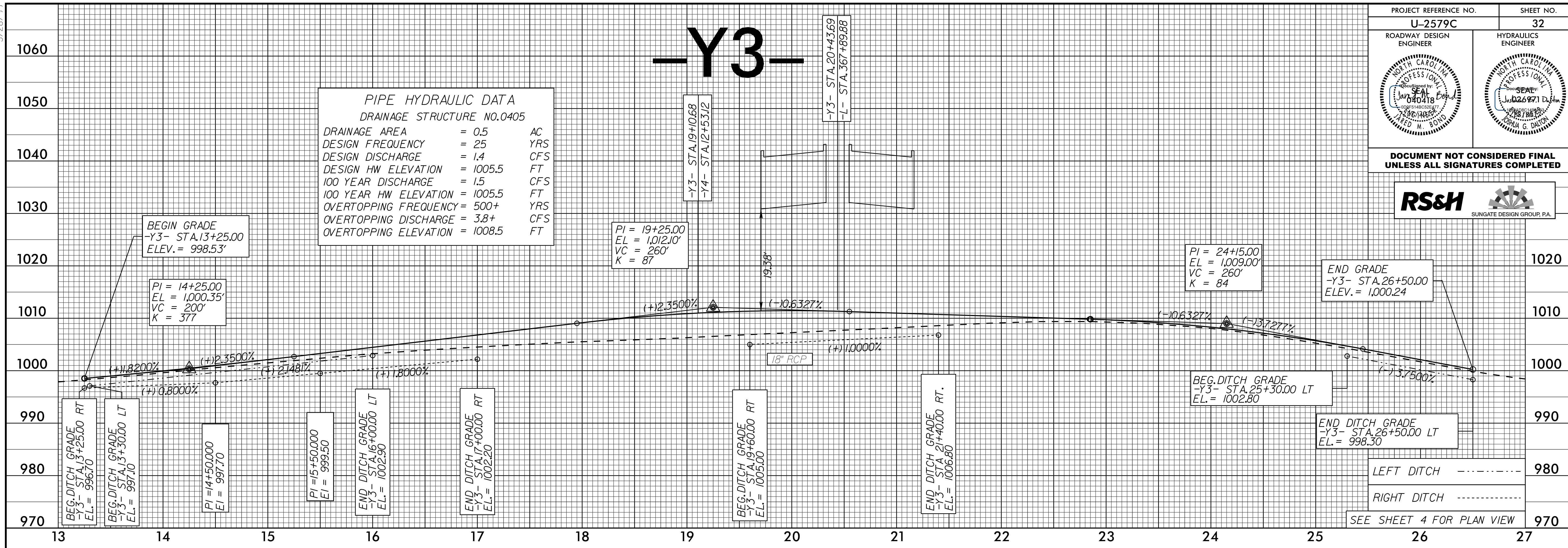


07 JUL 2017 15:35 P:\R\06060606\U-2579C-p1\_Y2DET\_31.dgn

5/28/19

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>32</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



SEE SHEET 4 FOR PLAN VIEW

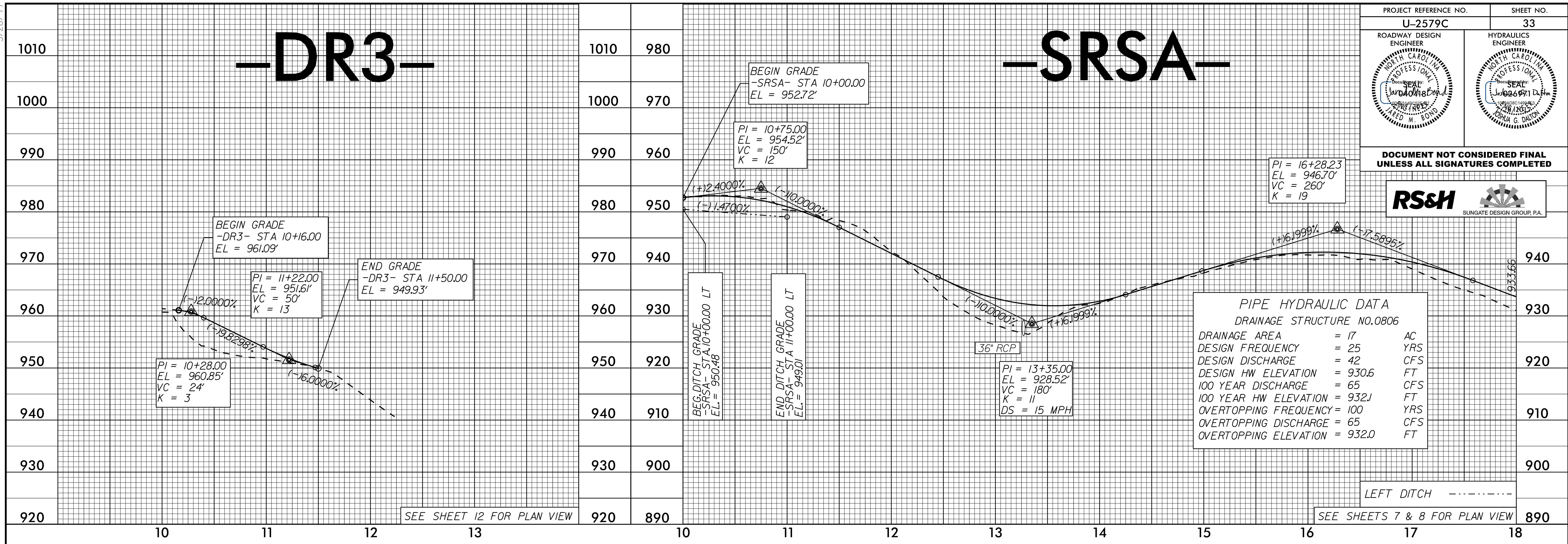
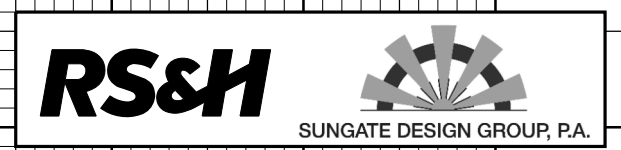
SEE SHEET 12 FOR PLAN VIEW

07 JUL 2017 15:35  
 P:\Projects\U-2579C\p1\Y3\_Y4\_DR2\_32.dgn  
 R:\Users\jgibson\My Documents\U-2579C\p1\Y3\_Y4\_DR2\_32.dgn

5/28/19

PROJECT REFERENCE NO. <b>U-2579C</b>	SHEET NO. <b>33</b>
ROADWAY DESIGN ENGINEER <i>[Signature]</i> PROFESSIONAL SEAL JAMES M. BOYD	HYDRAULICS ENGINEER <i>[Signature]</i> PROFESSIONAL SEAL CHRISTINA G. DALTON

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



BEGIN GRADE  
-DR3- STA 10+16.00  
EL = 961.09'

PI = 11+22.00  
EL = 951.61'  
VC = 50'  
K = 13

END GRADE  
-DR3- STA 11+50.00  
EL = 949.93'

PI = 10+28.00  
EL = 960.85'  
VC = 24'  
K = 3

BEGIN GRADE  
-SRSA- STA 10+00.00  
EL = 952.72'

PI = 10+75.00  
EL = 954.52'  
VC = 150'  
K = 12

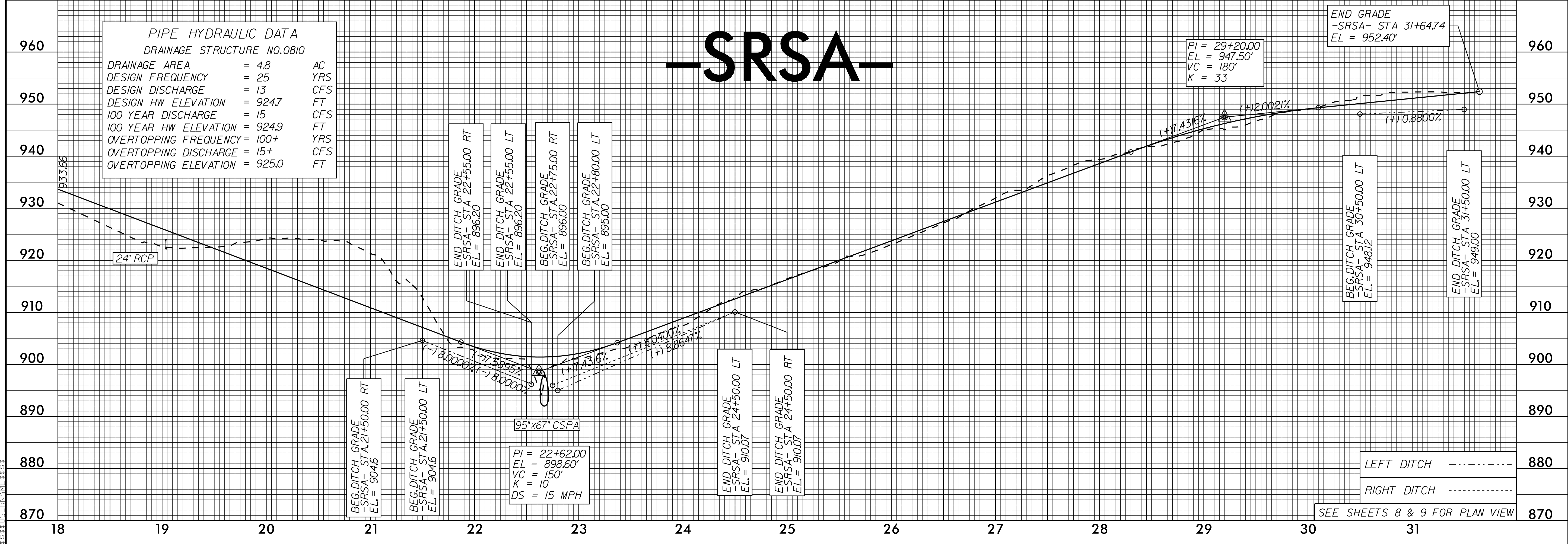
PI = 16+28.23  
EL = 946.70'  
VC = 260'  
K = 19

PIPE HYDRAULIC DATA  
DRAINAGE STRUCTURE NO.0806

DRAINAGE AREA	= 17	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 42	CFS
DESIGN HW ELEVATION	= 930.6	FT
100 YEAR DISCHARGE	= 65	CFS
100 YEAR HW ELEVATION	= 932.1	FT
OVERTOPPING FREQUENCY	= 100	YRS
OVERTOPPING DISCHARGE	= 65	CFS
OVERTOPPING ELEVATION	= 932.0	FT

PIPE HYDRAULIC DATA  
DRAINAGE STRUCTURE NO.0810

DRAINAGE AREA	= 4.8	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 13	CFS
DESIGN HW ELEVATION	= 924.7	FT
100 YEAR DISCHARGE	= 15	CFS
100 YEAR HW ELEVATION	= 924.9	FT
OVERTOPPING FREQUENCY	= 100+	YRS
OVERTOPPING DISCHARGE	= 15+	CFS
OVERTOPPING ELEVATION	= 925.0	FT



# -SRSA-

END GRADE  
-SRSA- STA 31+64.74  
EL = 952.40'

PI = 29+20.00  
EL = 947.50'  
VC = 180'  
K = 33

END DITCH GRADE  
-SRSA- STA 22+55.00 RT  
EL = 896.20

END DITCH GRADE  
-SRSA- STA 22+55.00 LT  
EL = 896.20

BEG. DITCH GRADE  
-SRSA- STA 22+75.00 RT  
EL = 896.00

BEG. DITCH GRADE  
-SRSA- STA 22+80.00 LT  
EL = 895.00

BEG. DITCH GRADE  
-SRSA- STA 30+50.00 LT  
EL = 948.12

END DITCH GRADE  
-SRSA- STA 31+50.00 LT  
EL = 949.00

PI = 22+62.00  
EL = 898.60'  
VC = 150'  
K = 10  
DS = 15 MPH

BEG. DITCH GRADE  
-SRSA- STA 21+50.00 RT  
EL = 904.6

BEG. DITCH GRADE  
-SRSA- STA 21+50.00 LT  
EL = 904.6

END DITCH GRADE  
-SRSA- STA 24+50.00 LT  
EL = 910.07

END DITCH GRADE  
-SRSA- STA 24+50.00 RT  
EL = 910.07

LEFT DITCH

RIGHT DITCH

SEE SHEETS 8 & 9 FOR PLAN VIEW

07 JUL 2017 15:35 U-2579C-p1\_DR3\_SRSA\_33.dgn